SLV-SE230/SE430/SE630/SE730/SE737/ SE830/SX730/SX737

RMT-V405/V405A/V406/V406A/V406B/V407A/V407B/V407C

SERVICE MANUAL

AEP Model

SLV-SE230B/SE230D/SE430K/SE630B/SE630D/SE630E/SE630N/ SE730B/SE730D/SE730E/SE730N/SE737E/SE830B/SE830D/ SE830E/SE830N/SX730D/SX730E/SX730N/SX737D

UK Model

SLV-SE230G/SE230I/SE730G/SE730I/SE830G

Photo: SLV-SE830N
RMT-V407A

TS-10 MECHANISM

Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENT MANUAL VII for MECHANICAL ADJUSTMENTS. (9-921-790-11)

SPECIFICATIONS

System

Colour system
- SE230B/SE630B/SE730B/SE830B:
- SECAM (L)
  - VHF F2 to F10
  - UHF F21 to F69
  - CATV B to Q
  - HYPER S21 to S41
- PAL (B/G)
  - VHF E2 to E12
  - VHF italian channels A to H
  - UHF E21 to E69
  - CATV S01 to S05, S1 to S20
  - HYPER S21 to S41
- SE230D/SE630D/SE630E/SE730D/SE730E/ SE737E/SE830D/SE830E/SX730D/SX730E/ SX737D:
- PAL (B/G)
  - VHF E2 to E12
  - VHF italian channels A to H
  - UHF E21 to E69
  - CATV S01 to S05, S1 to S20
  - HYPER S21 to S41
- SE230G/SE730G/SE830G:
- PAL (I)
  - UHF B21 to B69
- SE230I/SE730I:
- PAL (I)
  - VHF IA to IJ, SA10 to SA13
  - UHF B21 to B69
  - CATV S01 to S05, S1 to S20
  - HYPER S21 to S41
- SE430K/SE630N/SE730N/SE830N/SX730N:
- PAL (B/G, D/K)
  - VHF E2 to E12, R1 to R12
  - UHF E21 to E69, R21 to R69
  - CATV S1 to S41, S01 to S05
- RF output signal
- SE230D/SE230G/SE230I/SE430K/SE630D/ SE630E/SE630N/SE730D/SE730E/SE730G/ SE730I/SE730N/SE737E/SE830D/SE830E/ SE830G/SE830N/SX730D/SX730E/SX730N/ SX737D:
- UHF channels 21 to 69

Aerial out
- 75-ohm asymmetrical aerial socket

Tape speed
- SE230B:
- SP: PAL 23.39 mm/s (recording/playback)
  NTSC 33.35 mm/s (playback only)
  SECAM
  23.39 mm/s (recording/playback)
  MESECAM
  23.39 mm/s (playback only)
- LP: NTSC 16.67 mm/s (playback only)
  SECAM
  11.70 mm/s (recording/playback)
  MESECAM
  11.70 mm/s (playback only)
- SE230D:
- SP: PAL 23.39 mm/s (recording/playback)
  NTSC 33.35 mm/s (playback only)
- LP: NTSC 16.67 mm/s (playback only)
- SE230G/SE230I/SE630D/SE630E/SE730D/ SE730E/SE730G/SE730I/SE737E/SE830D/ SE830E/SE830G/SX730D/SX730E/SX737D:
- SP: PAL 23.39 mm/s (recording/playback)
  NTSC 33.35 mm/s (playback only)
- LP: PAL 11.70 mm/s (recording/playback)
  NTSC 16.67 mm/s (playback only)
- EP: NTSC 11.12 mm/s (playback only)

— Continued on next page —

VIDEO CASSETTE RECORDER

SONY

SE430K/SE630N/SE730N/SE830N/SX730N:
SP: PAL/MESECAM
23.39 mm/s (recording/playback)
NTSC 33.35 mm/s (playback only)
LP: PAL/MESECAM
11.70 mm/s (recording/playback)
NTSC 16.67 mm/s (playback only)
EP: NTSC 11.12 mm/s (playback only)
SE630B/SE730B/SE830B:
SP: PAL 23.39 mm/s (recording/playback)
NTSC 33.35 mm/s (playback only)
SECAM
23.39 mm/s (recording/playback)
MESECAM
23.39 mm/s (playback only)
LP: PAL 11.70 mm/s (recording/playback)
NTSC 16.67 mm/s (playback only)
SECAM
11.70 mm/s (recording/playback)
MESECAM
11.70 mm/s (playback only)
EP: NTSC 11.12 mm/s (playback only)
Maximum recording/playback time
10 hrs. in LP mode (with E300 tape)
Rewind time
Approx. 1 min.(with E180 tape)

Inputs and outputs

LINE-1 (EURO AV)
21-pin
Video input: pin 20
Audio input: pins 2 and 6
Video output: pin 19
Audio output: pins 1 and 3
LINE-2 (DEC/EXT)/LINE-3 (DEC/EXT)
21-pin
Video input: pin 20
Audio input: pins 2 and 6
SE830B/SE830D/SE830E/SE830G/SE830N:
⇦ LINE-2 L ⇦ R
VIDEO IN, phono jack (1)
Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
AUDIO IN, phono jack (2)
Input level: 327 mVrms
Input impedance: more than 47 kilohms
SE730B/SE730D/SE730E/SE730G/SE730I/SE730N/SE737E/SE830B/SE830D/SE830E/SE830G/SE830N/SX730D/SX730E/SX730N/SX737D:
AUDIO (OUT/SORTIE) R/D L/G
Phono jack (2)
Rated output level: 327 mVrms
Load impedance: 47 kilohms
Output impedance: less than 10 kilohms

General

Power requirements
220 – 240 V AC, 50 Hz
Power consumption
SE230B/SE230D/SE230G/SE230I/SE430K:
15 W
1.2 W (POWER SAVE is set to ECO2, minimum)
SE630B/SE630D/SE630E/SE630N:
17 W
1.2 W (POWER SAVE is set to ECO2, minimum)
SE730B/SE730D/SE730ESE730G/SE730I/SE730N/SE737E/SE830B/SE830D/SE830E/SE830G/SE830N/SX730D/SX730E/SX730N/SX737D:
17 W
1.3 W (POWER SAVE is set to ECO2, minimum)
Operating temperature
5 °C to 40 °C
Storage temperature
–20 °C to 60 °C
Dimensions including projecting parts and controls (w/h/d)
SE230B/SE230D/SE230G/SE230I/SE430K:
Approx. 360 × 95 × 245 mm
SE630B/SE630D/SE630E/SE630N/SE730B/SE730D/SE730E/SE730G/SE730I/SE730N/SE737E/SX730D/SX730E/SX730N/SX737D:
Approx. 430 × 96 × 245 mm
SE830B/SE830D/SE830E/SE830G/SE830N:
Approx. 430 × 96 × 253 mm
Mass
SE230B/SE230D/SE230G/SE230I/SE430K:
Approx. 2.8 kg
SE630B/SE630D/SE630E/SE630N/SE730B/SE730D/SE730E/SE730G/SE730I/SE730N/SE737E/SE830B/SE830D/SE830E/SE830G/SE830N/SX730D/SX730E/SX730N/SX737D:
Approx. 3.1 kg

Supplied accessories

Remote commander (1)
R6 (size AA) batteries (2)
Aerial cable (1)
SE230B/SE630B/SE730B/SE830B:
PERITEL cable (1)

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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- Main A model: SE230/SE430/SE630
  Main B model: SE730/SE737/SE830/SX730/SX737
  Hi-Fi model: SE630/SE730/SE737/SE830/SX730/SX737
  Mono model: SE230/SE430

IMPORTANT SERVICE GUIDE

◆ MODE SWITCH (PROGRAM SWITCH) ASSEMBLY POINT

1) When installing the ass'y deck on the Main PCB, be sure to align the assembly point of mode switch.

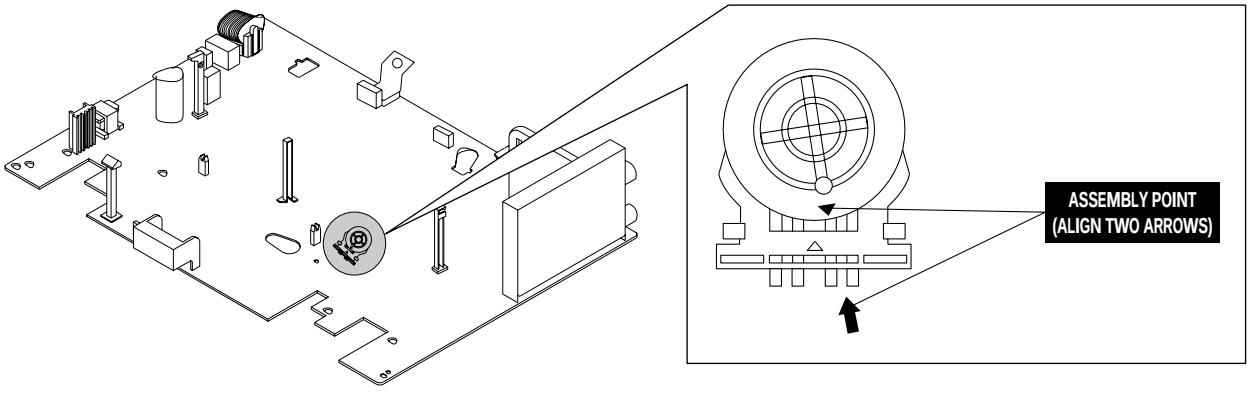


Fig. 1

◆ HOW TO EJECT THE CASSETTE TAPE
(If the unit does not operate on condition that tape is inserted into housing ass'y)

1) Turn the Gear Worm ❶ clockwise in the direction of arrow with screw driver. (See Fig. 2)
   (Other method ; Remove the screw of Motor Load Ass'y, Separate the Motor Load Ass'y)
2) When Slider S, T are approached in the position of unloading, rotate holder Clutch counterclockwise after inserting screw driver in the hole of frame's bottom in order to wind the unwiunded tape. (Refer to Fig. 3)
   (If you rotate Gear Worm ❶ continuously when tape is in state of unwinding, you may cause a tape contamination by grease and tape damage. Be sure to wind the unwiunded tape in the state of set horizontally.)
3) Rotate Gear Worm ❶ clockwise using screw driver again up to the state of eject mode and then pick out the tape. (Refer to Fig. 2)

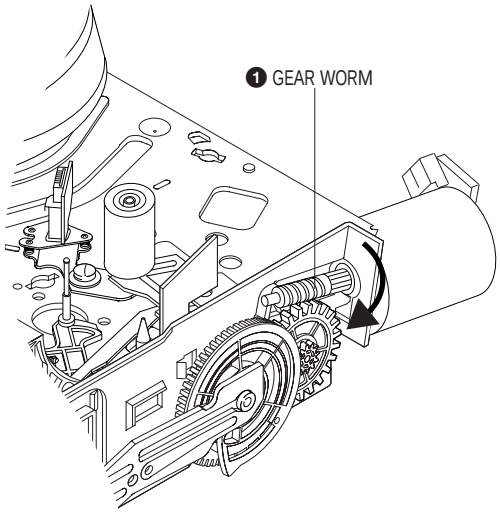


Fig. 2

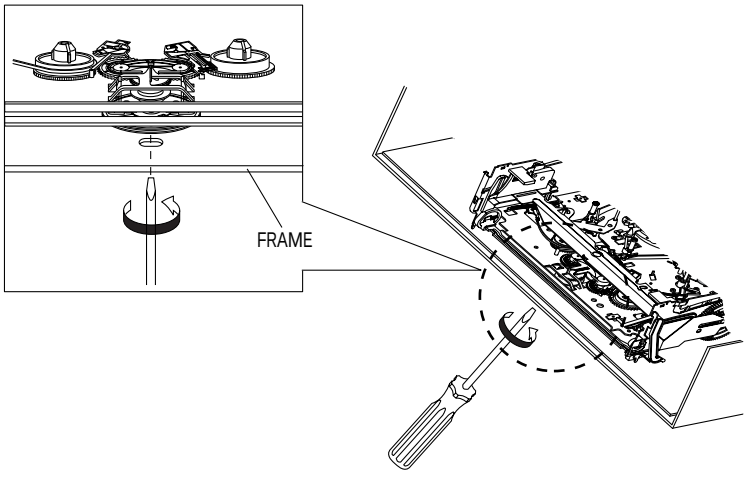


Fig. 3

1. GENERAL

This section is extracted from SLV-SE430K/SE630N/SE730N/ SE830N/SX730N instruction manual. (3-081-623-11)

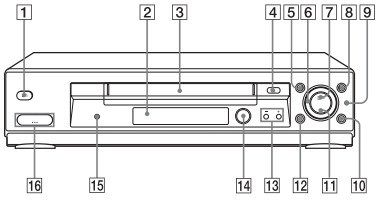
Getting Started

Index to parts and controls

Refer to the pages indicated in parentheses ( ) for details.

Front panel

For SLV-SE830N



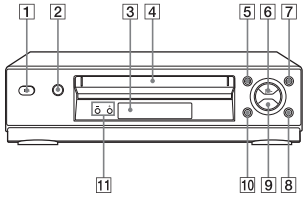
1 I/⏻ (on/standby) switch
2 Remote sensor (12)
3 Tape compartment
4 ⏏ (eject) button (39)
5 ◀◀ (rewind) button (39) (58)
6 Shuttle ring (58)
7 ▷ (play) button* (39) (58)
8 ▶▶ (fast-forward) button (39) (58)
9 JOG button (58)
10 REC ● (record) button (43) (60) (74)
11 ■ (stop) button* (22) (39) (74) (75)
12 ❚❚ (pause) button (39) (50) (74) (75)
13 PROGRAM +/– buttons* (47) (59) (68)
14 ⏲ DIAL TIMER (46)
15 AUDIO DUB button (75)
16 LINE-2 L (left) R (right) jacks (covered)* (72) (73) (75)

How to open the jack cover

1 Press the bottom of the cover.
2 Hook your finger on the top edge of the cover and pull it open.

* The ▷ (play), ■ (stop) and PROGRAM + buttons and jack cover have a tactile dot.

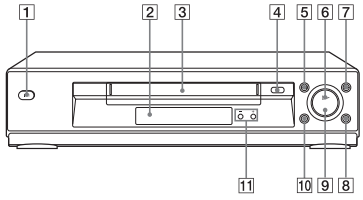
For SLV-SE430K



1 I/⏻ (on/standby) switch
2 ⏏ (eject) button (39)
3 Remote sensor (12)
4 Tape compartment
5 ◀◀ (rewind) button (39) (58)
6 ▷ (play) button* (39) (58)
7 ▶▶ (fast-forward) button (39) (58)
8 REC ● (record) button (43) (60) (74)
9 ■ (stop) button* (22) (39) (74) (75)
10 ❚❚ (pause) button (39) (74) (75)
11 PROGRAM +/– buttons* (59) (68)

* The ▷ (play), ■ (stop) and PROGRAM + buttons have a tactile dot.

For SLV-SE730N, SX730N and SE630N



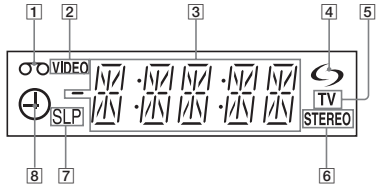
1 I/⏻ (on/standby) switch
2 Remote sensor (12)
3 Tape compartment
4 ⏏ (eject) button (39)
5 ◀◀ (rewind) button (39) (58)
6 ▷ (play) button* (39) (58)
7 ▶▶ (fast-forward) button (39) (58)
8 REC ● (record) button (43) (60) (74)
9 ■ (stop) button* (22) (39) (74) (75)
10 ❚❚ (pause) button (39) (74) (75)
11 PROGRAM +/– buttons* (59) (68)

* The ▷ (play), ■ (stop) and PROGRAM + buttons have a tactile dot.

continued

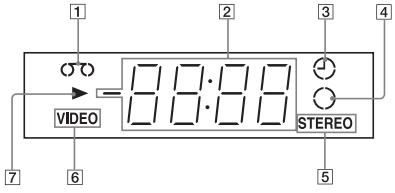
Display window

For SLV-SE830N, SE730N and SX730N



1 Tape indicator
2 VIDEO indicator (17) (43)
3 Time counter/clock/line/programme position indicator (40) (42) (74)
4 ↬ (smartlink) indicator (18)
5 TV indicator (45)
6 STEREO indicator (63)
7 Tape speed indicators (42)
8 Timer/recording indicator (43) (48) (53) (56)

For SLV-SE630N and SE430K



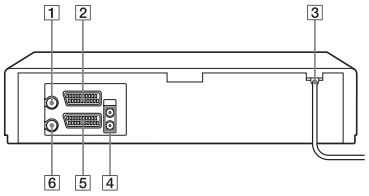
1 Tape indicator
2 Time counter/clock/line/programme position indicator (40) (42) (74)
3 Timer indicator (48) (53) (56)
4 Recording indicator (43)
5 STEREO indicator* (63)
6 VIDEO indicator (17) (43)
7 Playback indicator

* not available on SLV-SE430K

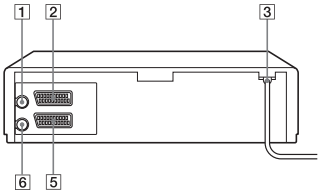
continued

Rear panel

For SLV-SE830N, SE730N, SX730N and SE630N



For SLV-SE430K



1 ℸ (in from antenna) connector (16) (17)

2 LINE-3 (DEC/EXT) connector*1 LINE-2 (DEC/EXT) connector*2 (19) (36) (73)

3 Mains lead (16) (17)

4 AUDIO (OUT/SORTIE) R/D (right) L/G (left) jacks*3 (19)

5 LINE-1 (EURO AV) connector (17) (36) (72)

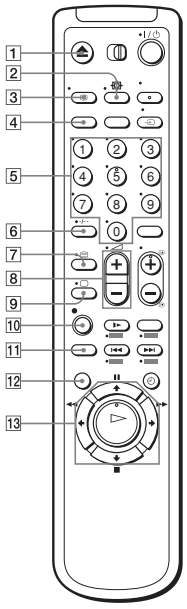
6 (out to tv) connector (16) (17)

*1 SLV-SE830N

*2 SLV-SE730N, SX730N, SE630N and SE430K

*3 not available on SLV-SE630N

Remote commander



1 ⏏ (eject) button (39)

2 (wide) button (*for TV*) (14) (15)

3 DISPLAY button (14) (40) (43)

4 COUNTER/REMAIN button (43)

5 Programme number buttons*1 (13) (44)

6 -/-- (ten's digit) button (13) (44)

7 (Teletext) button (*for TV*)*2 (14)

8 (volume) +/– buttons (*for TV*) (13)

9 TV power on/TV mode select button (*for TV*)*2 (13)

10 ● REC (record) button (43) (60)

11 SP (Standard Play)/LP (Long Play) button (42)

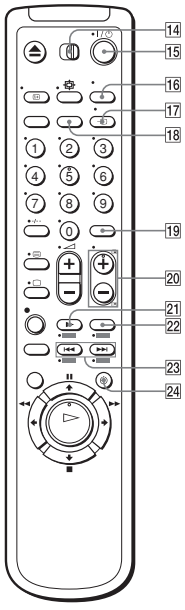
12 MENU button (24) (61)

13 ❚❚ (pause)/↑ button (24) (39)
■ (stop)/↓ button (24) (39)
◀◀ (rewind)/← button (24) (39) (58)
▶▶ (fast-forward)/→ button (24) (39) (58)
▷ (play)/OK button*1 (24) (39) (58)

*1 The ▷ (play), AUDIO MONITOR, number 5 and PROG + buttons have a tactile dot.

*2 SLV-SE830N only

continued



14 TV / VIDEO remote control switch (12)

15 I/⏻ (on/standby) switch (13) (14) (53)

16 AUDIO MONITOR button*1*3 (14) (64)

17 TV/VIDEO button (13) (17) (43)

18 CLEAR button (40) (52) (61)

19 INPUT SELECT button (42) (56) (74)

20 PROG (programme) +/– buttons*1 (13) (42)
/ Teletext page access buttons (*for TV*)*2 (14)

21 ▮► SLOW button*4 (58)

22 ×2 button*4 (58)

23 I◀◀ / ▶▶I (index search) buttons*3*4 (66)

24 TIMER button (51) (55)

*1 The ▷ (play), AUDIO MONITOR, number 5 and PROG + buttons have a tactile dot.

*2 SLV-SE830N only

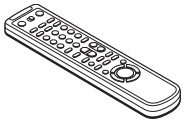
*3 not available on SLV-SE430K

*4 FASTEXT buttons (*for TV*) (SLV-SE830N only)

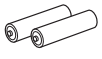
Step 1 : Unpacking

Check that you have received the following items with the VCR:

• Remote commander



• R6 (size AA) batteries



• Aerial cable

Check your model name

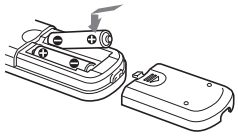
The instructions in this manual are for the 5 models: SLV-SE830N, SE730N, SX730N, SE630N and SE430K. Check your model name by looking at the rear panel of your VCR.
SLV-SE830N is the model used for illustration purposes. Any difference in operation is clearly indicated in the text, for example, "SLV-SE830N only."

Step 2 : Setting up the remote commander

Inserting the batteries

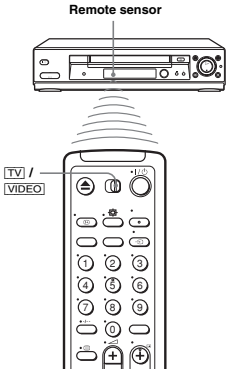
Insert two R6 (size AA) batteries by matching the + and – on the batteries to the diagram inside the battery compartment.

Insert the negative (–) end first, then push in and down until the positive (+) end clicks into position.

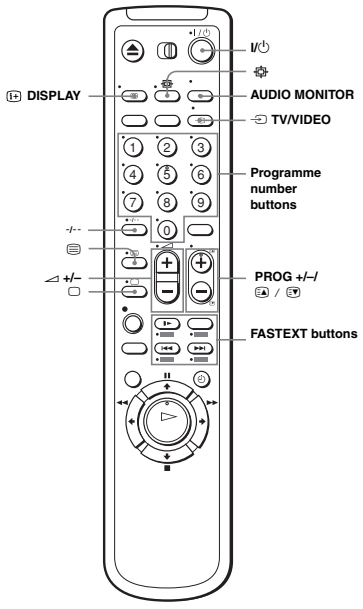


Using the remote commander

You can use this remote commander to operate this VCR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your Sony TV. If the TV does not have the symbol near the remote sensor, this remote commander will not operate the TV.



To operate	Set TV / VIDEO to
the VCR	VIDEO and point at the remote sensor at the VCR
a Sony TV	TV and point at the remote sensor at the TV



TV control buttons

To	Press
Set the TV to standby mode	I/⏻
Select an input source: aerial in or line in	TV/VIDEO
Select the TV's programme position	Programme number buttons, -/--, PROG +/–
Adjust the volume of the TV	+/–
Switch to TV (Teletext off)*1	(TV)

continued

To	Press
Switch to Teletext*1	(Teletext)
Select the sound*2	AUDIO MONITOR
Use FASTEXT*1	FASTEXT buttons
Call up the on-screen display	DISPLAY
Change the Teletext page*1	/
Switch to/from wide mode of a Sony wide TV (For other manufactures' wide TVs, see "Controlling other TVs with the remote commander (SLV-SE830N only)" below.)	(wide)

Notes

- With normal use, the batteries should last about three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery together with an old one.
- Do not use different types of batteries together.
- Some buttons may not work with certain Sony TVs.

*1 SLV-SE830N only
*2 not available on SLV-SE430K

Controlling other TVs with the remote commander (SLV-SE830N only)

The remote commander is preprogrammed to control non-Sony TVs. If your TV is listed in the following table, set the appropriate manufacturer's code number.

1 Set TV / VIDEO at the top of the remote commander to TV.

2 Hold down I/⏻, and enter your TV's code number using the programme number buttons. Then release I/⏻.

Now you can use the following TV control buttons to control your TV:

I/⏻, TV/VIDEO, programme number buttons, -/-- (ten's digit), PROG +/–, +/–, (TV), (Teletext), FASTEXT buttons, (wide)*, MENU*, ↑/↓/←/→*, and OK*.

* These buttons may not work with all TVs.

Code numbers of controllable TVs

If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

To switch to wide mode, see the footnotes below this table for the applicable code numbers.

Manufacturer	Code number
Sony	01*1, 02
Akai	68
Ferguson	52
Grundig	10*1, 11*1
Hitachi	24
JVC	33
Loewe	45
Mivar	09, 70
NEC	66
Nokia	15, 16, 69*3

Manufacturer	Code number
Panasonic	17*1, 49
Philips	06*1, 07*1, 08*1
Saba	12, 13
Samsung	22, 23
Sanyo	25
Sharp	29
Telefunken	36
Thomson	43*2
Toshiba	38

*1 Press (wide) to switch the wide picture mode on or off.
*2 Press (wide), then press +/– to select the wide picture mode you want.
*3 Press (wide). The menu appears on the TV screen. Then, press ↑/↓/←/→ to select the wide picture you want and press OK.

Tip

- When you set your TV's code number correctly while the TV is turned on, the TV turns off automatically.

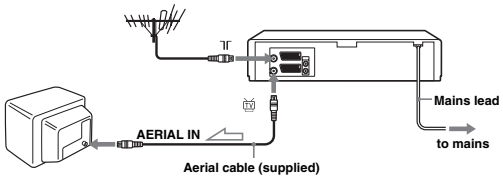
Notes

- If you enter a new code number, the code number previously entered will be erased.
- If the TV uses a different remote control system from the one programmed to work with the VCR, you cannot control your TV with the remote commander.
- When you replace the batteries of the remote commander, the code number may change. Set the appropriate code number every time you replace the batteries.

Step 3 : Connecting the VCR

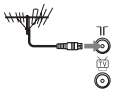
If your TV has a Scart (EURO-AV) connector, see page 17.

If your TV does not have a Scart (EURO-AV) connector

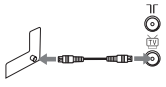


: Signal flow

1 Disconnect the aerial cable from your TV and connect it to ⅂ on the rear panel of the VCR.



2 Connect ⍞ of the VCR and the aerial input of your TV using the supplied aerial cable.

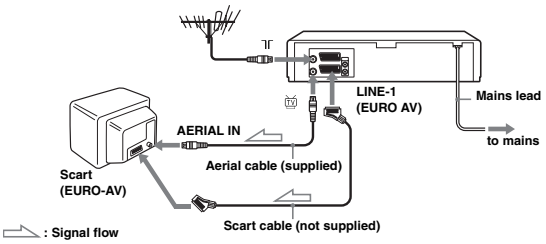


3 Connect the mains lead to the mains.

Note

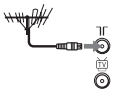
- When you connect the VCR and your TV only with an aerial cable, you have to tune your TV to the VCR (see page 20).

If your TV has a Scart (EURO-AV) connector



: Signal flow

1 Disconnect the aerial cable from your TV and connect it to ⅂ on the rear panel of the VCR.



2 Connect ⍞ of the VCR and the aerial input of your TV using the supplied aerial cable.

3 Connect LINE-1 (EURO AV) on the VCR and the Scart (EURO-AV) connector on the TV with the optional Scart cable.

This connection improves picture and sound quality. Whenever you want to watch the VCR picture, press ⇨ TV/VIDEO to display the VIDEO indicator in the display window.

4 Connect the mains lead to the mains.

continued

About the SMARTLINK features (not available on SLV-SE630N and SE430K)

If the connected TV complies with SMARTLINK, MEGALOGIC*1, EASYLINK*2, Q-Link*3, EURO VIEW LINK*4, or T-V LINK*5, this VCR automatically runs the SMARTLINK function after you complete the steps on the previous page (the ↻ indicator appears in the VCR's display window when you turn on the TV). You can enjoy the following SMARTLINK features.

- TV Direct Rec
  You can easily record what you are watching on the TV when the VCR is turned on. For details, see "Recording what you are watching on the TV (TV Direct Rec) (not available on SLV-SE630N and SE430K)" on page 45.
- One Touch Play
  With One Touch Play, you can start playback automatically without turning on the TV. For details, see "Starting playback automatically with one button (One Touch Play) (not available on SLV-SE630N and SE430K)" on page 41.
- One Touch Menu
  When the VCR is turned on, you can turn on the TV, set the TV to the video channel, and display the VCR's on-screen display automatically by pressing MENU on the remote commander.
- One Touch Timer
  When the VCR is turned on, you can turn on the TV, set the TV to the video channel, and display the timer recording menu (the TIMER PROGRAMMING menu or the SHOWVIEW menu) automatically by pressing ⏲ TIMER on the remote commander.
  You can set which timer recording menu is displayed using TIMER METHOD in the EASY OPERATION menu (see page 71).
- NexTView Download
  You can easily set the timer by using the NexTView Download function on your TV. Please refer to your TV's instruction manual.

*1 "MEGALOGIC" is a registered trademark of Grundig Corporation.
*2 "EASYLINK" is a trademark of Philips Corporation.
*3 "Q-Link" is a trademark of Panasonic Corporation.
*4 "EURO VIEW LINK" is a trademark of Toshiba Corporation.
*5 "T-V LINK" is a trademark of JVC Corporation.

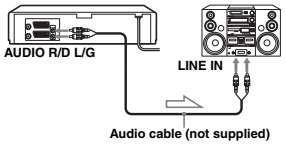
Note

- Not all TVs respond to the functions above.

Additional connections

To a stereo system (not available on SLV-SE630N and SE430K)

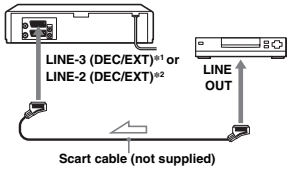
You can improve sound quality by connecting a stereo system to the AUDIO R/D L/G jacks as shown on the right.



: Signal flow

To a satellite or digital tuner with Line Through

Using the Line Through function, you can watch programmes from a satellite or digital tuner connected to this VCR on the TV even when the VCR is turned off. When you turn on the satellite or digital tuner, this VCR automatically sends the signal from the satellite or digital tuner to the TV without turning itself on.



: Signal flow

1 Connect the satellite or digital tuner to the LINE-3 (DEC/EXT)*1 or LINE-2 (DEC/EXT)*2 connector as shown above.

2 Turn off the VCR.

To watch a programme, turn on the satellite or digital tuner and the TV.

Notes

- The Line Through function will not operate properly if POWER SAVE in the USER SET menu is set to ECO2. Set POWER SAVE to OFF or ECO1 to ensure proper operation (see page 69).
- You cannot watch programmes on the TV while recording unless you are recording a satellite or digital programme.
- This function may not work with some types of satellite or digital tuners.
- When the VCR is turned off, set the TV to the video channel.

*1 SLV-SE830N
*2 SLV-SE730N, SX730N, SE630N and SE430K

Step 4 : Setting up the VCR with the Auto Set Up function

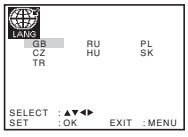
Before using the VCR for the first time, set up the VCR using the Auto Set Up function. With this function, you can set the language for the on-screen display, TV channels, guide channels for the ShowView system*, and VCR clock* automatically.

1 Turn on your TV and set it to the video channel.

If your TV does not have a Scart (EURO-AV) connector, tune the TV to channel 32 (the initial RF channel for this VCR). Refer to your TV manual for TV tuning instructions. If the picture does not appear clearly, see "To change the RF channel" on page 22.

2 Connect the mains lead to the mains.

The VCR automatically turns on, and the language abbreviations appear on the TV screen.



The abbreviations of the languages are as follows:

Abbreviation	Country	Language
CZ	Czecho	Czech
HU	Hungary	Hungarian
PL	Poland	Polish
SK	Slovakia	Slovak
TR	Turkey	Turkish
RU	Russia	Russian

3

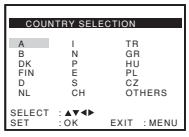
Press ↑/↓/←/→ to select the language abbreviation from the table in step 2, then press OK.

The message for the Auto Set Up function appears.

4

Press OK.

The COUNTRY SELECTION menu* appears.



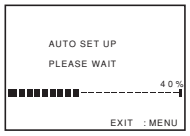
The abbreviations of the countries are as follows:

Abbreviation	Country	Abbreviation	Country
A	Austria	E	Spain
B	Belgium	S	Sweden
DK	Denmark	CH	Switzerland
FIN	Finland	TR	Turkey
D	Germany	GR	Greece
NL	Netherlands	HU	Hungary
I	Italy	PL	Poland
N	Norway	CZ	Czech
P	Portugal	OTHERS	other countries

5

For SLV-SE830N, SE730N and SX730N

Press ↑/↓/←/→ to select the abbreviation of your country from the table in step 4, then press OK. If your country does not appear, select OTHERS.



The VCR starts searching for all of the receivable channels and presets them (in the appropriate order for your local area).

If you want to change the order of the channels or disable unwanted programme positions, see "Changing/disabling programme positions" on page 31.

After the search or download is complete, the current time appears for any stations that transmit a time signal. If the time does not appear, set the clock manually. See "Setting the clock" on page 24.

For SLV-SE630N and SE430K

The clock setting menu appears. See "Setting the clock" on page 24.

continued

To cancel the Auto Set Up function

Press MENU.

To change the RF channel

If the picture does not appear clearly on the TV, change the RF channel on the VCR and TV. Select INSTALLATION from the menu, then press ↑/↓ to highlight VCR OUTPUT CH and press →. Select the RF channel by pressing the ↑/↓ buttons. Then, tune the TV to the new RF channel so that a clear picture appears.

Tip

- If you want to change the language for the on-screen display from the one preset in the Auto Set Up function, see page 27.

Notes

- Whenever you operate the Auto Set Up function, some of the settings (ShowView®, timer, etc.) will be reset. If this happens, you have to set them again.
- Auto preset starts automatically only when you plug in the mains lead for the first time after you purchase the VCR.
- After using the Auto Set Up function, the language abbreviations do not appear automatically when you connect the mains lead again. If you want to use the Auto Set Up function again, press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK. Press ↑/↓ to highlight AUTO SET UP, then repeat all procedures from step 4.
- Auto preset can be performed by pressing ■ (stop) on the VCR continuously for 5 seconds or more with no tape inserted.

* not available on SLV-SE630N and SE430K

Step 5 : Selecting the TV system

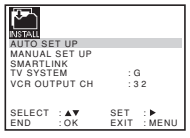
You must select the appropriate TV system for your area.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

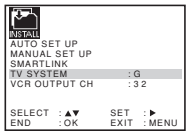
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



2

Press ↑/↓ to highlight TV SYSTEM, then press →.



3

Press → to select the appropriate TV system. Select "G" for the B/G TV system, or "K" for the D/K TV system.

4 MENU

Press MENU to exit the menu.

Setting the clock

You must set the time and date on the VCR to use the timer features properly.

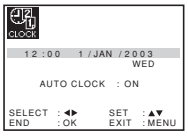
The Auto Clock Set function* works only if a station in your area is broadcasting a time signal.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to “Index to parts and controls” for button locations.

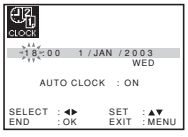
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight CLOCK SET and press OK.



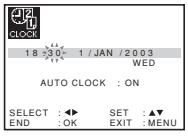
2

Press ↑/↓ to set the hour.



3

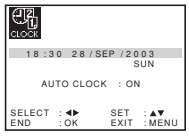
Press → to select the minutes and set the minutes by pressing ↑/↓.



4

Set the day, month, and year in sequence by pressing → to select the item to be set, and press ↑/↓ to select the digits, then press →.

The day of the week is set automatically.

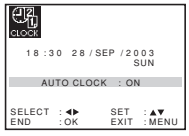


5

Press ↑/↓ to select ON for the setting of the Auto Clock Set function*.

The VCR automatically sets the clock according to the time signal broadcast between the channels PR 1 to PR 5.

If you do not need the Auto Clock Set function, select OFF.



6 MENU

Press MENU to exit the menu.

Tips

- If you set AUTO CLOCK* to ON, the Auto Clock Set function is activated whenever the VCR is turned off. The time is adjusted automatically by making reference to the time signal from the station.
- To change the digits while setting, press ← to return to the item to be changed, and select the digits by pressing ↑/↓.

* not available on SLV-SE630N and SE430K

Downloading the TV tuner’s preset data (SLV-SE830N, SE730N and SX730N only)

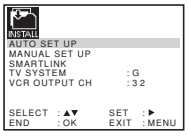
You can download your TV tuner’s preset data to the VCR and tune the VCR according to that data using the SMARTLINK connection.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to “Index to parts and controls” for button locations.

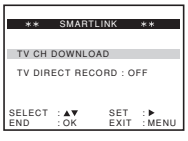
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



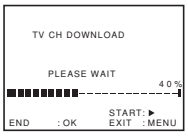
2

Press ↑/↓ to highlight SMARTLINK, then press →.



3

Press ↑/↓ to highlight TV CH DOWNLOAD, then press →. The Preset Download function starts and the ↻ indicator flashes in the display window during download.



Selecting a language

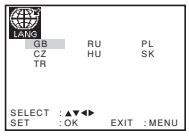
You can change the on-screen display language from the one you selected with the Auto Set Up function.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to “Index to parts and controls” for button locations.

1 MENU

Press MENU, then press ↑/↓/←/→ to highlight LANGUAGE SET and press OK.



2

Press ↑/↓/←/→ to highlight the abbreviation of the desired language from the table on page 20, then press OK.

Presetting channels

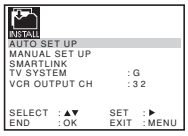
If some channels could not be preset using the Auto Set Up function, you can preset them manually.

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

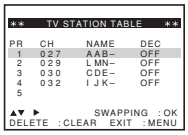
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



2

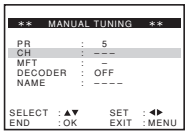
Press ↑/↓ to highlight MANUAL SET UP, then press →.



3

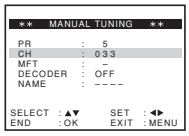
Press ↑/↓ to highlight the row which you want to preset, then press →.

To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



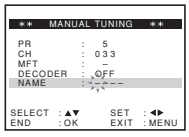
4

Press ←/→ repeatedly until the channel you want is displayed.



5

Press ↑/↓ to highlight NAME, then press →.

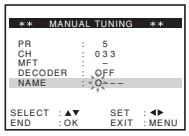


6

Enter the station name.

1 Press ↑/↓ to select a character. Each time you press ↑, the character changes as shown below.

A → B → … → Z → 0 → 1 → … → 9 → A



2 Press → to set the next character.
The next space is flashed.
To correct a character, press ←/→ until the character you want to correct is flashed, then reset it.

You can set up to 4 characters for the station name.

7

Press OK to confirm the station name.

8 MENU

Press MENU to exit the menu.

continued

If the picture is not clear

If the picture is not clear, you may use the Manual Fine Tuning (MFT) function. After step 4, press ↑/↓ to select MFT. Press ←/→ to get a clear picture, then press MENU to exit the menu.

Tips

- To set the programme position for the decoder, see "Setting the Canal Plus decoder" on page 36.
- The VCR must receive channel information for station names to appear automatically.

Notes

- If the TV sound is distored or noisy, select the appropriate TV system ("G" or "K") for your area (see page 23).
- When adjusting MFT, the menu may become difficult to read due to interference from the picture being received.

Changing/disabling programme positions

After setting the channels, you can change the programme positions as you like. If any programme positions are unused or contain unwanted channels, you can disable them.

You can also change the station names. If the station names are not displayed, you can enter them manually.

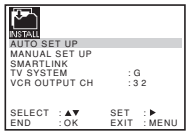
Changing programme positions

Before you start…

- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

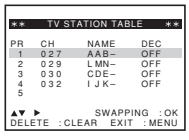
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



2

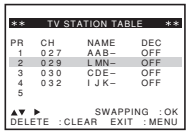
Press ↑/↓ to highlight MANUAL SET UP, then press →.



3

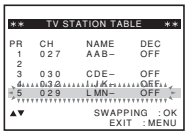
Press ↑/↓ to highlight the row containing the programme position you want to change.

To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



continued

4 Press OK, then press ↑/↓ to move to the desired programme position.



5 Press OK to confirm the setting.

6 To change the programme position of another station, repeat steps 3 through 5.

7 MENU

Press MENU to exit the menu.

Disabling unwanted programme positions

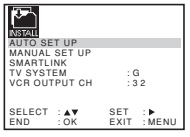
After presetting channels, you can disable unused programme positions. The disabled positions will be skipped later when you press the PROG +/– buttons.

Before you start…

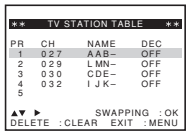
- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION, and press OK.

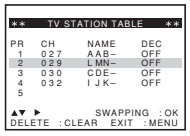


2 Press ↑/↓ to highlight MANUAL SET UP, then press →.



3 Press ↑/↓ to highlight the row which you want to disable.

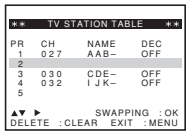
To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



4 CLEAR

Press CLEAR.

The selected row will be cleared as shown on the right.



5 Repeat steps 3 and 4 for any other programme positions you want to disable.

6 MENU

Press MENU to exit the menu.

Note

- Be sure to select the programme position you want to disable correctly. If you disable a programme position by mistake, you need to reset that channel manually.

continued

Changing the station names

You can change or enter the station names (up to 4 characters). The VCR must receive channel information for station names to appear automatically*.

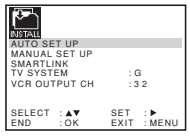
* not available on SLV-SE630N and SE430K

Before you start…

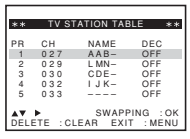
- Turn on the VCR and the TV.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.

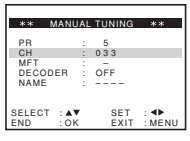


2 Press ↑/↓ to highlight MANUAL SET UP, then press →.

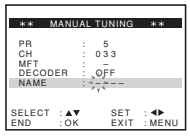


3 Press ↑/↓ to highlight the row which you want to change or enter the station name, then press →.

To display other pages for programme positions 6 to 80, press ↑/↓ repeatedly.



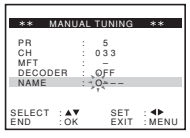
4 Press ↑/↓ to highlight NAME, then press →.



5 Enter the station name.

1 Press ↑/↓ to select a character. Each time you press ↑, the character changes as shown below.

A → B → … → Z → 0 → 1 → … → 9 → A



2 Press → to set the next character.
The next space flashes.
To correct a character, press ←/→ until the character you want to correct flashes, then reset it.
You can set up to 4 characters for the station name.

6 Press OK to confirm the new name.

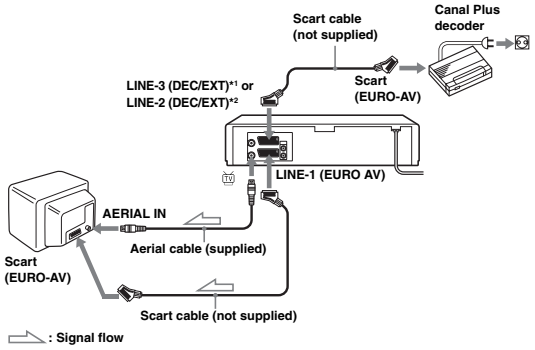
7 MENU

Press MENU to exit the menu.

Setting the Canal Plus decoder

You can watch or record Canal Plus programmes if you connect a decoder (not supplied) to the VCR.

Connecting a decoder



Setting Canal Plus channels

To watch or record Canal Plus programmes, set your VCR to receive the channels using the on-screen display.

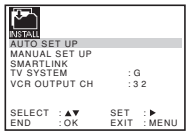
In order to set the channels correctly, be sure to follow all of the steps below.

Before you start…

- Turn on the VCR, the TV, and the decoder.
- Set the TV to the video channel.
- Refer to "Index to parts and controls" for button locations.

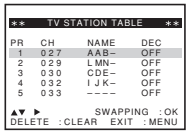
1 MENU

Press MENU, then press ↑/↓/←/→ to highlight INSTALLATION and press OK.



2

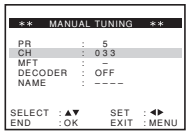
Press ↑/↓ to highlight MANUAL SET UP, then press →.


** TV STATION TABLE **
PR CH NAME DEC
1 027 AAB– OFF
2 029 LMN– OFF
3 030 CDE– OFF
4 032 IJK– OFF
5 033 ---- OFF
▲▼ ▶ SWAPPING : OK
DELETE : CLEAR EXIT : MENU

3

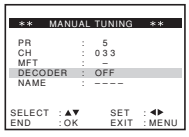
Press ↑/↓ to highlight the row which you want to set for the decoder, then press →.

To display positions 6 to 80, press ↑/↓ repeatedly.



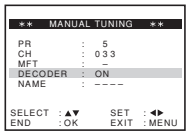
4

Press ↑/↓ to highlight DECODER.



5

Press → to set DECODER to ON, then press OK.



continued

6 MENU

Press MENU to exit the menu.

Notes

- To superimpose subtitles while watching Canal Plus programmes, make both decoder-VCR and VCR-TV connections using 21-pin Scart cables that are compatible with the RGB signals. You cannot record subtitles on the VCR.
- When you watch Canal Plus programmes through the RFU input of the TV, press TV/VIDEO so that the VIDEO indicator appears in the display window.

*1 SLV-SE830N

*2 SLV-SE730N, SX730N, SE630N and SE430K

Basic Operations

Playing a tape

Before you start...

- Refer to "Index to parts and controls" for button locations.

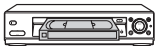
1

Turn on your TV and set it to the video channel.

2

Insert a tape.

The VCR turns on and starts playing automatically if you insert a tape with its safety tab removed.



3

Press ▷ (play).

When the tape reaches the end, it will rewind automatically.

Additional tasks

To	Press
Stop play	■ (stop)
Pause play	❚❚ (pause)
Resume play after pause	❚❚ (pause) or ▷ (play)
Fast-forward the tape	▶▶ (fast-forward) during stop
Rewind the tape	◀◀ (rewind) during stop
Eject the tape	⏏ (eject)

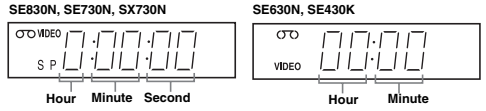
continued

To set the colour system

If the playback picture has no colour, or streaks appear during playback, set COLOUR SYSTEM in the USER SET menu to conform to the system that the tape was recorded in (see page 70). (Normally set the option to AUTO.)

To use the time counter

Press CLEAR at the point on the tape that you want to find later. The counter in the display window resets to "0:00:00" or "00:00." Search for the point afterwards by referring to the counter.



To display the counter on the TV screen, press DISPLAY.

Notes

- The counter resets to "0:00:00" or "00:00" whenever a tape is reinserted.
- The counter stops counting when it comes to a portion with no recording.
- Depending on your TV, the following may occur while playing an NTSC-recorded tape:
  - The picture becomes black and white.
  - The picture shakes.
  - No picture appears on the TV screen.
  - Black streaks appear horizontally on the TV screen.
  - The colour density increases or decreases.
- While setting the menu on the TV screen, buttons for playback on the remote commander do not function.

Starting playback automatically with one button (One Touch Play) (not available on SLV-SE630N and SE430K)

If you use the SMARTLINK connection, you can turn on the TV, set the TV to the video channel, and start playback automatically with one button.

1 Insert a tape.

The VCR automatically turns on.

If you insert a tape with its safety tab removed, the TV turns on and switches to the video channel. Playback starts automatically.

2 Press ▷ (play).

The TV turns on and switches to the video channel automatically. Playback starts.

Tip

- When there already is a tape in the VCR, press I/⏻ to turn on the VCR first. When you press ▷ (play), the TV turns on, the TV is set to the video channel, and playback starts automatically in one sequence.

Note

- When you use the One Touch Play function, leave the TV on or in the standby mode.

Recording TV programmes

Before you start...

- Refer to "Index to parts and controls" for button locations.

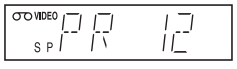
1 Turn on your TV and set it to the video channel.

To record from a decoder, turn it on.

2 Insert a tape with its safety tab in place.

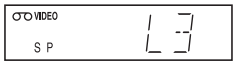
3 PROG +/–

- To record a normal channel, press PROG +/– until the programme position number you want appears in the display window.



INPUT SELECT

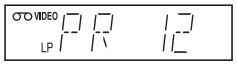
- To record from a decoder or other source connected to one or more of the LINE inputs, press INPUT SELECT until the connected line appears in the display window.

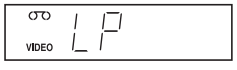


4 SP / LP

Press SP/LP to select the tape speed, SP or LP.

LP (Long Play) provides recording time twice as long as SP. However, SP (Standard Play) produces better picture and audio quality.

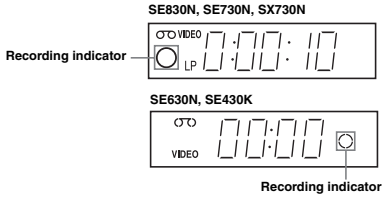




5 ●REC

Press ● REC to start recording.

The recording indicator lights up red in the display window.

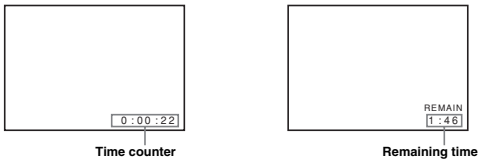


To stop recording

Press ■ (stop).

To check the remaining time

Press DISPLAY twice. With the display on, press COUNTER/REMAIN to check the remaining time. Each time you press COUNTER/REMAIN, the time counter and the remaining time appear alternately.



In order to get an accurate remaining time indication, be sure TAPE SELECT in the USER SET menu is set according to the tape type you use (see page 70).

To watch another TV programme while recording

1 Press TV/VIDEO to turn off the VIDEO indicator in the display window.

2 Select another programme position on the TV.

continued

To save a recording

To prevent accidental erasure, break off the safety tab as illustrated. To record on the same tape again, cover the tab hole with adhesive tape.

Safety tab

Tips

- To select a programme position, you can use the programme number buttons on the remote commander. For two-digit numbers, for example, press 2 and 3 to select "PR 23."
- If you connect additional equipment to a LINE connector or jack, you can select the input signal using the INPUT SELECT or PROG +/– buttons.
- The DISPLAY information appears on the TV screen indicating information about the tape, but the information will not be recorded on the tape.
- If you do not want to watch TV while recording, you can turn off the TV. When using a decoder, make sure to leave it on.

Notes

- The DISPLAY information does not appear during still (pause) mode or slow-motion playback.
- If a tape has portions recorded in both PAL (MESECAM) and NTSC systems, the time counter reading will not be correct. This discrepancy is due to the difference between the counting cycles of the two video systems.
- You cannot watch a Canal Plus programme while recording another Canal Plus programme.
- When you insert a non-standard commercially available tape, the remaining time may not be correct.
- The remaining time is intended for rough measurement only.
- About 30 seconds after the tape begins playback, the tape remaining time will be displayed.

Recording what you are watching on the TV (TV Direct Rec) (not available on SLV-SE630N and SE430K)

If you use the SMARTLINK connection, you can easily record what you are watching on the TV (other than tapes being played on the VCR).

1 Press I/⏻ to turn on the VCR.

2 Insert a tape with its safety tab in place.

3 Press ● REC while you are watching a TV programme or external source.

The TV indicator lights up and the VCR starts recording what you are watching on the TV.

Tip

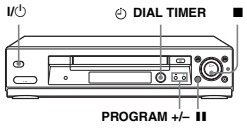
- The TV indicator appears in the display window after you press ● REC in some situations such as:
  – when you are watching a source connected to the TV's line input, or
  – when the TV tuner preset data for the programme position is different from the data in the VCR tuner preset.

Notes

- You cannot record what you are watching using this method when the VCR is in the following modes; pause, timer standby, tuner preset, Auto Set Up, and recording.
- When the TV indicator is lit in the display window, do not turn off the TV nor change the TV programme position. When the TV indicator is not lit, the VCR continues recording the programme even if you change the TV programme position on the TV.
- To use the TV Direct Rec function, select SMARTLINK in the INSTALLATION menu, then set TV DIRECT RECORD to ON.

Recording TV programmes using the Dial Timer (SLV-SE830N only)

The Dial Timer function allows you to make timer recordings of programmes without turning on your TV. Set the recording timer to record up to eight programmes, including settings made with other timer methods, that will be broadcast within the next month. The recording start time and recording stop time can be set at one minute intervals.



Before you start...

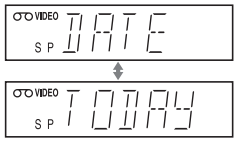
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- To record from a decoder, turn it on.
- Refer to "Index to parts and controls" for button locations.

1 DIAL TIMER

Press ⏲ DIAL TIMER.

"DATE" and "TODAY" appear alternately in the display window.

If the date and time are not set, "DAY" will appear. See step 2 in the following section, "To set the clock" to set the date and time.



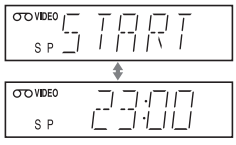
2 DIAL TIMER

Turn ⏲ DIAL TIMER to set the recording date.

3 DIAL TIMER

Press ⏲ DIAL TIMER.

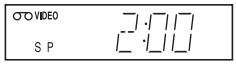
"START" and the current time appear alternately in the display window.



4 DIAL TIMER, PROGRAM

Turn ⏲ DIAL TIMER to set the recording start time.

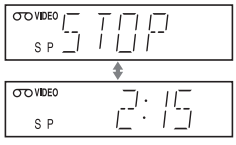
You can set the recording start time in 15 minute intervals or adjust the time in one minute intervals by pressing the PROGRAM +/– buttons.



5 DIAL TIMER

Press ⏲ DIAL TIMER.

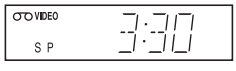
"STOP" and the recording stop time alternately appear in the display window.



6 DIAL TIMER, PROGRAM

Turn ⏲ DIAL TIMER to set the recording stop time.

You can set the recording stop time in 15 minute intervals or adjust the time in one minute intervals by pressing the PROGRAM +/– buttons.



continued

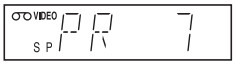
7 ⏲DIAL TIMER

Press ⏲ DIAL TIMER.

The programme position or LINE input appears in the display window.

8 ⏲DIAL TIMER

Turn ⏲ DIAL TIMER to set the programme position.



INPUT SELECT

To record from a decoder or other source connected to one or more of the LINE inputs, turn ⏲ DIAL TIMER or press INPUT SELECT to display the connected line in the display window.

9 ⏲DIAL TIMER

Press ⏲ DIAL TIMER to complete the setting.

"OK" appears in the display window for about five seconds.

The ⏲ indicator appears in the display window and the VCR stands by for recording.

To record from a decoder or other source, leave the connected equipment switched on.

To return to the previous step

To return to the previous step, press the PROGRAM + and – buttons on the VCR at the same time during any of the Dial Timer settings.

To stop recording

To stop the VCR while recording, press ■ (stop).

To use the VCR after setting the timer

To use the VCR before a recording begins, just press I/⏻. The ⏲ indicator turns off and the VCR switches on. Remember to press I/⏻ to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 40).
- Display tape information on the TV screen (page 43).
- Check the timer settings (page 61).
- Watch another TV programme (page 43).

To set the clock

1 Hold down ⏲ DIAL TIMER so that "DAY" appears in the display window. However, if the clock has already been set, the current setting appears.

2 Turn ⏲ DIAL TIMER to set the day.

3 Press ⏲ DIAL TIMER.
"MONTH" appears in the display window.

4 Turn and press ⏲ DIAL TIMER to set the month, and then the year.
After you set the year, "CLOCK" appears in the display window again.

5 Turn and press ⏲ DIAL TIMER to set the hour and minute.

6 When you have finished setting the time, press ⏲ DIAL TIMER to start the clock.

Tips

- To cancel a Dial Timer setting, press ■ (stop) on the VCR while you are making the setting.
- The programme is recorded in the current tape speed mode. To change the tape speed, press SP/LP before you complete the setting in step 9.
- To check, change, or cancel the programme setting, see "Checking/changing/cancelling timer settings" on page 61.

Notes

- If eight programmes have already been set using the ShowView system or the TIMER PROGRAMMING menu, "FULL" appears in the display window for about five seconds.
- The ⏲ indicator flashes in the display window when you complete the setting in step 9 with no tape inserted.
- If you set the clock using the Auto Clock Set function and AUTO CLOCK is set to ON, the clock will adjust itself to the incoming time signal regardless of adjustments made with the Dial Timer. Be sure you have set the Auto Clock Set correctly.
- When the time is set incorrectly, "ERROR" appears in the display window in step 9. Set the timer again from step 1.
- You cannot set the tape speed to AUTO using the Dial Timer. To select AUTO, set the tape speed in the TIMER PROGRAMMING menu (see page 61).

continued

About the Demonstration Mode

The Dial Timer function has a Demonstration Mode that allows the user, such as a salesperson, to enter more than eight examples of timer settings when demonstrating the use of the Dial Timer. It cancels the "FULL" notice which appears if eight programmes have already been set. Do not use the Demonstration Mode for making timer recordings. Doing so may cause the settings to be inaccurate.

To activate the Demonstration Mode

Press ❚❚ (pause) on the VCR while turning the ⏲ DIAL TIMER. "DEMO" appears in the display window for a few seconds.

To cancel the Demonstration Mode

Turn the power off and unplug the mains lead. Although the Demonstration Mode is cancelled, the timer settings entered while using the Demonstration Mode will remain. Be sure to manually cancel the timer settings before you use the Dial Timer or any other timer method after reconnecting the mains lead (see page 61).

Recording TV programmes using the ShowView® system (SLV-SE830N, SE730N and SX730N only)

The ShowView system is the feature that simplifies programming the VCR to make timer recordings. Just enter the ShowView number listed in the TV programme guide. The date, times, and programme position of that programme are set automatically. You can preset a total of eight programmes, including settings made with other timer methods.

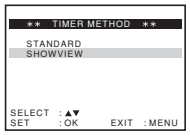
Before you start…

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- To record from a decoder, turn it on.
- Turn on your TV and set it to the video channel.
- Set TIMER METHOD to SHOWVIEW or VARIABLE in the EASY OPERATION menu (see page 71).
- Refer to "Index to parts and controls" for button locations.

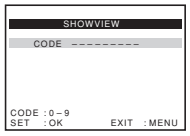
1 TIMER

Press ⏲ TIMER.

- When you set TIMER METHOD to VARIABLE:
  The TIMER METHOD menu appears on the TV screen. Press ↑/↓ to select SHOWVIEW, then press OK.



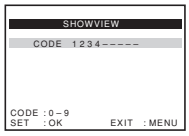
- When you set TIMER METHOD to SHOWVIEW:
  The SHOWVIEW menu appears on the TV screen.



continued

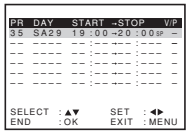
2 Press the programme number buttons to enter the ShowView number.

If you make a mistake, press CLEAR and re-enter the correct number.



3 Press OK.

The date, start and stop times, programme position, tape speed and VPS/PDC setting appear on the TV screen.



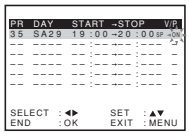
- If "– –" appears in the "PR" (programme) column (this may happen for local broadcasts), you have to set the appropriate programme position manually. Press ↑/↓ to select the desired programme position.
- To record from a decoder or other source connected to one or more of the LINE inputs, press INPUT SELECT to display the connected line in the "PR" position.

You will only have to do this operation once for the referred channel. The VCR will then store your setting.

If the information is incorrect, press CLEAR to cancel the setting.

4 If you want to change the date, tape speed and the VPS/PDC setting:

1 Press ←/→ to select the item you want to change.
2 Press ↑/↓ to reset it.



- To record the same programme every day or the same day every week, see "Daily/weekly recording" on page 53.
- To use the VPS/PDC function, set V/P to ON. For details about the VPS/PDC function, see "Timer recording with VPS/PDC signals" on page 53.

5 Press MENU to exit the menu.

6 Press I/⏻ to turn off the VCR.

The ⏲ indicator appears in the display window and the VCR stands by for recording.

To record from a decoder or other source, leave the connected equipment switched on.

To stop recording

To stop the VCR while recording, press ■ (stop).

Daily/weekly recording

In step 4 above, press ↓ to select the recording pattern. Each time you press ↓, the indication changes as shown below. Press ↑ to change the indication in reverse order.
today → DLY (Monday to Sunday) → W-SA (every Saturday) ..... → W-SU (every Sunday) → 1 month later → (dates count down) → today

Timer recording with VPS/PDC signals

Some broadcast systems transmit VPS (Video Programme System) or PDC (Programme Delivery Control) signals with their TV programmes. These signals ensure that your timer recordings are made regardless of broadcast delays, early starts, or broadcast interruptions.

To use the VPS/PDC function, set V/P to ON in step 4 above. You can also use the VPS/PDC function for a source connected to one or more of the LINE inputs.

To use the VCR after setting the timer

To use the VCR before a recording begins, just press I/⏻. The ⏲ indicator turns off and the VCR switches on. Remember to press I/⏻ to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 40).
- Display tape information on the TV screen (page 43).
- Check the timer settings (page 61).
- Watch another TV programme (page 43).

continued

To use the Auto Tape Speed function

In step 4 above, press ↓ to select AUTO. When you are recording a programme in the SP mode and the remaining tape length becomes shorter than the recording time, the recording tape speed is automatically changed to the LP mode. Note that some noise will appear on the picture when the tape speed is changed. To operate this function correctly, the "TAPE SELECT" setting in the USER SET menu must be accurate (see page 70).

Tips

- To set the line input video source, you can also use the INPUT SELECT button.
- You can set the extended time for the ShowView setting by 10, 20, 30, 40, 50, or 60 minutes. Set SHOWVIEW EXTEND in the EASY OPERATION menu to the desired extended time on page 71.
- To check, change, or cancel the programme setting, see "Checking/changing/cancelling timer settings" on page 61.

Notes

- If the VPS/PDC signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function.
- The ⏲ and ⏲⏲ indicators flash in the display window when you press I/⏻ with no tape inserted.
- When you set TIMER METHOD to STANDARD in the EASY OPERATION menu, the SHOWVIEW menu does not appear on the TV screen. Select SHOWVIEW or VARIABLE.

Recording TV programmes using the timer

You can preset a total of eight programmes, including settings made with other timer methods.

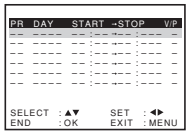
Before you start…

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- To record from a decoder, turn it on.
- Turn on your TV and set it to the video channel.
- Set TIMER METHOD* to STANDARD or VARIABLE in the EASY OPERATION menu (see page 71).
- Refer to "Index to parts and controls" for button locations.

1 Press ⏲ TIMER.

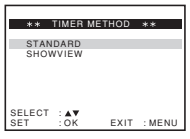
For SLV-SE630N and SE430K

The TIMER PROGRAMMING menu appears on the TV screen.

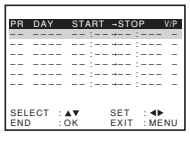


For SLV-SE830N, SE730N and SX730N

- When you set TIMER METHOD to VARIABLE:
  The TIMER METHOD menu appears on the TV screen. Press ↑/↓ to select STANDARD, then press OK.

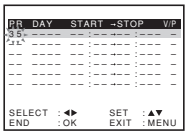


- When you set TIMER METHOD to STANDARD:
  The TIMER PROGRAMMING menu appears on the TV screen.



continued

2 Set the date, start and stop times, programme position, tape speed and VPS/PDC function*:



1 Press ➡ to select each item in turn.

2 Press ↑/↓ to set each item.

To correct a setting, press ⬅ to return to that setting and reset.

- To record the same programme every day or the same day every week, see "Daily/weekly recording" on page 56.
- To use the VPS/PDC function*, set V/P to ON. For details about the VPS/PDC function, see "Timer recording with VPS/PDC signals" on page 53.
- To record from a decoder or other source connected to one or more of the LINE inputs, press INPUT SELECT to display the connected line in the "PR" position.

3

Press MENU to exit the menu.

4

Press I/⏻ to turn off the VCR.

The ⏲ indicator appears in the display window and the VCR stands by for recording.

To record from a decoder or other source, leave the connected equipment switched on.

To stop recording

To stop the VCR while recording, press ■ (stop).

Daily/weekly recording

In step 2 above, press ↓ to select the recording pattern. Each time you press ↓, the indication changes as shown below. Press ↑ to change the indication in reverse order.

today → DLY (Monday to Sunday) → W-SA (every Saturday) ..... → W-SU (every Sunday) → 1 month later → (dates count down) → today

To use the VCR after setting the timer

To use the VCR before a recording begins, just press I/⏻. The ⏲ indicator turns off and the VCR switches on. Remember to press I/⏻ to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 40).
- Display tape information on the TV screen (page 43).
- Check the timer settings (page 61).
- Watch another TV programme (page 43).

To use the Auto Tape Speed function

In step 2 above, press ↓ to select AUTO. When you are recording a programme in the SP mode and the remaining tape length becomes shorter than the recording time, the recording tape speed is automatically changed to the LP mode. Note that some noise will appear on the picture when the tape speed is changed. To operate this function correctly, the "TAPE SELECT" setting in the USER SET menu must be accurate (see page 70).

Tips

- To set the line input video source, you can also use the INPUT SELECT button.
- Even if you set TIMER METHOD* to SHOWVIEW in the EASY OPERATION menu, you can set the timer manually. Press MENU to select TIMER PROGRAMMING, then go to step 2.
- To check, change, or cancel the programme setting, see "Checking/changing/cancelling timer settings" on page 61.

Notes

- When setting the timer with VPS/PDC* signals, enter the start and stop times exactly as indicated in the TV programme guide. Otherwise, the VPS/PDC function will not work.
- If the VPS/PDC* signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function.
- The ⏲ and ⏺ indicators flash in the display window when you press I/⏻ with no tape inserted.
- The VPS/PDC function* is automatically set to off for the timer recording of a satellite programme.

* not available on SLV-SE630N and SE430K

Additional Operations

Playing/searching at various speeds

Before you start…

- Refer to "Index to parts and controls" for button locations.

Playback options	Operation
View the picture during fast-forward or rewind	During fast-forward, hold down ▶▶ (fast-forward). During rewind, hold down ◀◀ (rewind).
Play at high speed	• During playback, press ▶▶ (fast-forward) or ◀◀ (rewind) on the remote commander. • During playback, hold down ▶▶ (fast-forward) or ◀◀ (rewind). When you release the button, normal playback resumes.
Play at twice the normal speed	During playback, press ×2.
Play in slow motion	During playback, press ▮► SLOW.
Play frame by frame	During pause, press ▶▶ (fast-forward) or ◀◀ (rewind)* on the remote commander.

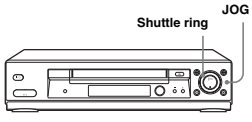
* SLV-SE830N only

To resume normal playback

Press ▷ (play).

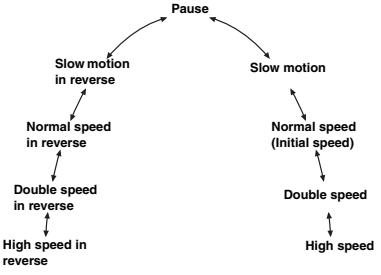
Using the shuttle ring (SLV-SE830N only)

With the shuttle ring, you can operate a variety of playback options. There are two ways for using the shuttle ring, normal mode and jog mode.



To use the shuttle ring in normal mode

During playback or pause, turn the shuttle ring clockwise or anticlockwise. Each change in the shuttle ring position changes the playback mode in the following way.



To use the shuttle ring in jog mode

Use this mode for frame-by-frame playback.

Press JOG to enter the jog mode. The JOG button lights up. If you change to the jog mode during any playback mode, playback pauses so you can see a still picture. Each change in the shuttle ring position shifts the picture one frame. To shift frames in reverse, turn the shuttle ring anticlockwise. The frame shift speed depends on the speed you turn the shuttle ring.

To resume normal mode, press JOG again. The JOG button turns off.

Tip

- Adjust the picture using the PROGRAM +/– buttons on the VCR if:
  – Streaks appear while playing in slow motion.
  – Bands appear at the top or bottom while pausing.
  – The picture shakes while pausing.
  To set tracking to the centre position, press both buttons (+/–) at the same time.

Notes

- The sound is muted during these operations.
- In the LP mode, noise may appear or there may be no colour.
- If the playback mode mark does not appear on the TV screen, press DISPLAY.
- The picture may show noise when playing at high speed in reverse.
- The picture returns to normal playback from slow motion in reverse in 30 seconds.

Setting the recording duration time

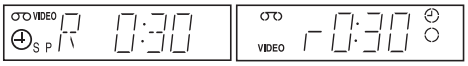
After you have started recording in the normal way, you can have the VCR stop recording automatically after a specified duration.

Before you start…

- Refer to "Index to parts and controls" for button locations.

1 While recording, press ● REC.

The ⏲ indicator appears in the display window.



2 Press ● REC repeatedly to set the duration time.

In SP mode

Each press advances the time in increments of 30 minutes.

0:30 → 1:00 ----→ 4:00 → 4:30 → **Normal recording**

In LP mode

Each press advances the time as shown below.

0:30 → 1:00 ----→ 8:00 → 9:00 → **Normal recording**

The tape counter decreases minute by minute to 0:00, then the VCR stops recording and turns off automatically.

To extend the duration

Press ● REC repeatedly to set a new duration time.

To cancel the duration

Press ● REC repeatedly until the ⏲ indicator disappears and the VCR returns to the normal recording mode.

To stop recording

To stop the VCR while recording, press ■ (stop).

Note

- You cannot display the current tape time in the display window when setting the recording duration time.

Checking/changing/cancelling timer settings

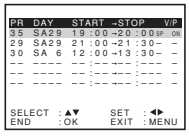
Before you start…

- Turn on your TV and set it to the video channel.
- Refer to "Index to parts and controls" for button locations.

1 Press I/⏻ to turn on the VCR.

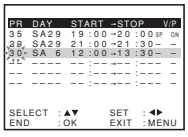
2 Press MENU, then press ↑/↓ to highlight TIMER PROGRAMMING and press OK.

- If you want to change or cancel a setting, go on to the next step.
- If you do not need to change or cancel the settings, press MENU, then turn off the VCR to return to recording standby.



3 Press ↑/↓ to select the setting you want to change or cancel, then press ➡.

The PR number on the selected row flashes.



4
- To change the setting, press ⬅/➡ to select the item you want to change, then press ↑/↓ to reset it.
- To cancel the setting, press CLEAR.

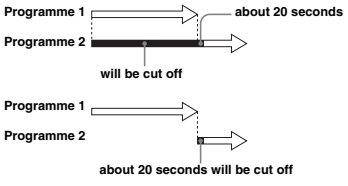
5 Press MENU to exit the menu.

If any settings remain, turn off the VCR to return to recording standby.

continued

When the timer settings overlap

The programme that starts first has priority and the second programme starts recording only after the first programme has finished. If the programmes start at the same time, the programme listed first in the menu has priority.



Recording stereo and bilingual programmes (not available on SLV-SE430K)

In the ZWEITON (German stereo) system

This VCR automatically receives and records stereo and bilingual programmes based on the ZWEITON system. When a stereo or bilingual programme is received, the STEREO indicator appears in the display window.

To select bilingual sound while recording

Press AUDIO MONITOR to select the sound you want.

To listen to	On-screen display	Display window
Main	MAIN	STEREO
Sub	SUB	STEREO
Main and sub	MAIN/SUB	STEREO
Standard sound*	MONO	STEREO

* Usually the main channel heard from both the left and right in bilingual programmes

To select stereo programme while recording

To listen to	On-screen display	Display window
Stereo	STEREO	STEREO
Left channel	LCH	STEREO
Right channel	RCH	STEREO
Standard sound	LCH + RCH	STEREO

* Usually the mixed sound of left and right channels in stereo programmes

continued

In the NICAM system

This VCR receives and records stereo and bilingual programmes based on the NICAM system (NICAM appears on the TV screen). When a stereo or bilingual programme is received, the STEREO indicator appears in the display window.

To record a NICAM programme, NICAM in the USER SET menu should be set to ON (initial setting). To check the menu setting, see page 71 for details.

To select the sound while recording

Press AUDIO MONITOR to select the sound you want.

Stereo programmes

To listen to	On-screen display	Display window
Stereo	NICAM, STEREO	STEREO
Left channel	NICAM, LCH	STEREO
Right channel	NICAM, RCH	STEREO
Left and right channels*	NICAM, LCH + RCH	STEREO

* Usually the mixed sound of left and right channels

Bilingual programmes

To listen to	On-screen display	Display window
Main	NICAM, MAIN	STEREO
Sub	NICAM, SUB	STEREO
Main and sub	NICAM, MAIN/SUB	STEREO
Standard sound*	NICAM, MONO	STEREO

* Usually the main sound (monaural)

Selecting the sound during Hi-fi playback

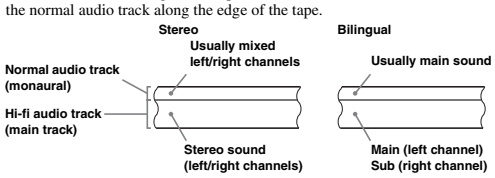
Press AUDIO MONITOR to select the sound you want.

To listen to	On-screen display	Display window
Stereo	STEREO	STEREO
Left channel	LCH	STEREO
Right channel	RCH	STEREO
Mix sound*	MIX	STEREO
Mono sound	MONO	No indicator

* The mixed sound of left and right channels, and the normal mono audio track

How sound is recorded on a video tape

The VCR records sound onto two separate tracks. Hi-fi audio is recorded onto the main track along with the picture. Monaural sound is recorded onto the normal audio track along the edge of the tape.



Notes

- To listen to playback sounds in stereo, you must use the Scart or AUDIO OUT connections.
- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the AUDIO MONITOR setting.

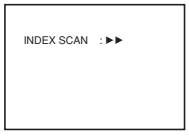
Searching using the index function (not available on SLV-SE430K)

The VCR automatically marks the tape with an index signal at the point where each recording begins. Use these signals as references to find a specific recording.

To find a specific recording by scanning (Index scan)

1 Insert an indexed tape into the VCR.

2 Press ⏮/⏭ (index search). The VCR starts scanning each recording for five seconds in the corresponding direction.

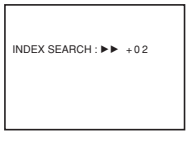


3 Press ▷ (play) to start playback when you find the desired point.

To search a specific recording (Index search)

1 Insert an indexed tape into the VCR.

2 Press ⏮/⏭ (index search) twice.
- To search ahead, press ⏭ (index search) twice.
- To search backwards, press ⏮ (index search) twice.



3 Press ⏮/⏭ (index search) depending on the direction where your desired programme is located.

Each time you press the button, the number increases or decreases up to ±20, respectively.

4 The VCR starts searching, and playback starts automatically from that point.

To stop searching

Press ■ (stop).

Notes

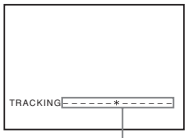
- No index signal will be added when recording starts from recording pause. However, an index signal will be marked if you change the programme position during recording pause.
- When you press ⏮ (index search), if there is nothing recorded before the selected index signal, playback may not start exactly at the index signal.

Adjusting the picture

Adjusting the tracking

Although the VCR automatically adjusts the tracking when playing a tape, distortion may occur if the recording is in poor condition. In this case, manually adjust the tracking.

During playback, press PROGRAM +/– on the VCR to display the tracking meter. The distortion should disappear as you press one of the two buttons. To resume automatic tracking adjustments, eject the tape and re-insert it.



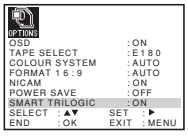
Tracking meter

Adjusting the picture sharpness (Smart trilogic)

You can automatically adjust the sharpness of the picture.

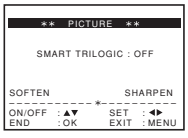
1 During playback, press MENU, then press ↑/↓/←/→ to highlight USER SET and press OK.

2 Press ↑/↓ to highlight SMART TRILOGIC, then press →.



3 Press ↑/↓ to set SMART TRILOGIC to ON or OFF.

- ON: Picture sharpness is automatically adjusted.
- OFF: Adjust the picture sharpness manually.
  To soften the picture, press ←.
  To sharpen the picture, press →.



4 Press MENU to return to the original screen.

Reducing the VCR's power consumption

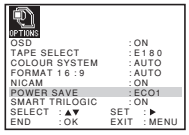
You can turn off the indicators in the display window when the VCR is off (standby mode) to reduce the VCR's power consumption.

1 Press MENU, then press ↑/↓/←/→ to highlight USER SET and press OK.

2 Press ↑/↓ to highlight POWER SAVE.

3 Press → to set to ECO1 or ECO2, then press OK.

- ECO1: To reduce the power consumption.
- ECO2: To reduce the power consumption to a minimum.



To turn on the indicators in the display window

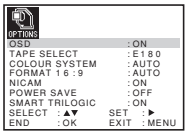
Set POWER SAVE to OFF in step 3.

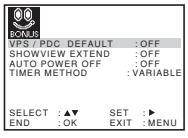
Notes

- When the VCR stands by for recording, the ⏲ indicator in the display window remain lit even when POWER SAVE is set to ECO1 or ECO2.
- The Line Through function will not operate properly if POWER SAVE is set to ECO2. Set POWER SAVE to OFF or ECO1 to ensure proper operation.

Changing menu options

1 Press MENU, then select USER SET or EASY OPERATION and press OK.





2 Press ↑/↓ to select the option.

3 Press → to change the setting, then press OK.

Menu choices

Initial settings are indicated in bold print.

USER SET

Menu option	Set this option to
OSD	• **ON** to display the menu on the TV screen. • OFF to disappear the menu from the TV screen.
TAPE SELECT	• **E180** to use an E-180 or shorter type tape. • E240 to use an E-240 type tape. • E260 to use an E-260 type tape. • E300 to use an E-300 type tape.
COLOUR SYSTEM	• **AUTO** to set the colour system automatically. • PAL to play back a tape recorded in the PAL colour system. • MESECAM to play back a tape recorded in the MESECAM colour system. If you press ⏏ (eject) or turn the VCR off, COLOUR SYSTEM will be reset to AUTO.
FORMAT 16:9	• **AUTO** when you use a wide screen TV. The VCR automatically detects if programmes being played back or recorded are in normal or wide screen format. • ON if the VCR cannot detect wide screen TV programmes with AUTO. The VCR always plays back and records in wide screen format. • OFF if you are not using a wide screen TV.

Menu option	Set this option to
NICAM*1	• **ON** to record NICAM broadcasts on the hi-fi audio track. • OFF to record standard sound on the hi-fi audio track. For details, see page 63.
POWER SAVE	• ECO1 to turn off the indicators in the display window to conserve the VCR's power. • ECO2 to turn off the indicators in the display window during standby mode to reduce the VCR's power consumption to a minimum. For using the Line Through function and Canal plus function, select ECO1 or OFF. • **OFF** to turn on the indicators in the display window while the VCR is standing by.
SMART TRILOGIC	• **ON** to automatically adjust the sharpness of the picture. • OFF to manually adjust the sharpness of the picture.

EASY OPERATION

Menu option	Set this option to
VPS/PDC DEFAULT*2	• **OFF** to deactivate the VPS/PDC function. • ON to activate it.
SHOWVIEW EXTEND*2	• **OFF** to deactivate the ShowView Extend function. • 10/20/30/.../60 (minutes) to extend the time of the ShowView setting by the selected amount of time.
AUTO POWER OFF	• **OFF** to deactivate the Auto Power Off function. • 2HOUR/3HOUR to turn the VCR off automatically if no signal is received and you do not press any of the buttons during this time.
TIMER METHOD*2	• **VARIABLE** to display the TIMER METHOD menu for selecting STANDARD or SHOWVIEW when pressing the ⏲ TIMER button. • STANDARD to display the TIMER PROGRAMMING menu when pressing the ⏲ TIMER button. • SHOWVIEW to display the SHOWVIEW menu when pressing the ⏲ TIMER button. For details, see pages 51 and 55.

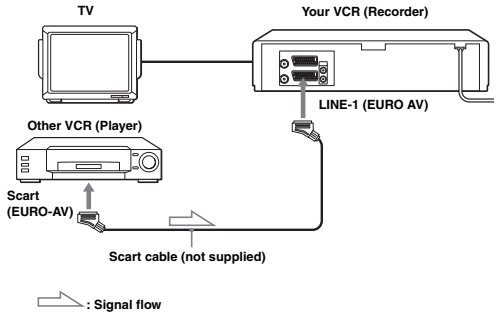
*1 not available on SLV-SE430K
*2 not available on SLV-SE630N and SE430K

Connecting to a VCR or stereo system

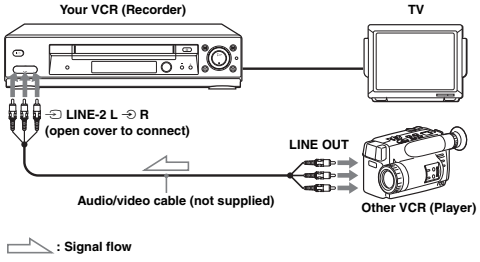
How to connect to record on this VCR

Connect the line outputs of the other VCR to the input connector of this VCR. Refer to the examples A through C and choose the connection that best suits your VCR.

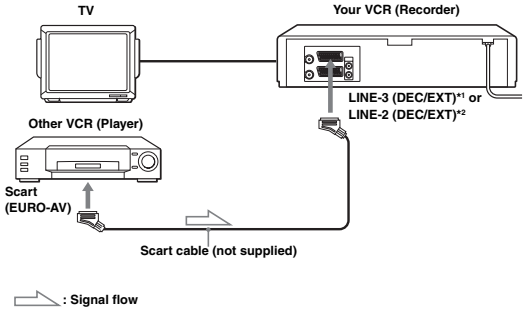
Example A



Example B (SLV-SE830N only)



Example C



How to connect to a stereo system (SLV-SE830N only)

Connect the LINE-2 L R jacks on this VCR to the audio output jacks on the stereo system, using an audio cable (not supplied).

Notes

- Make sure you connect the plugs to jacks of the same colour.
- If the other VCR is a monaural type, leave the red plugs unconnected.
- If you connect this VCR to both the LINE IN and LINE OUT jacks of the other VCR, select the input correctly to prevent a humming noise.
- If the other VCR does not have a Scart (EURO-AV) connector, use an adequate cable instead and connect the cable to the line out jacks of the other VCR.
- When you connect another VCR to the LINE-3 (DEC/EXT)*1 or LINE-2 (DEC/EXT)*2 connector, press INPUT SELECT to display "L3"*1 or "L2"*2 in the display window.

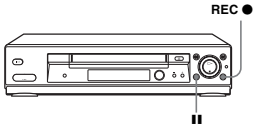
*1 SLV-SE830N
*2 SLV-SE730N, SX730N, SE630N and SE430K

Basic editing

When recording on this VCR

Before you start editing

- Turn on your TV and set it to the video channel.
- Press INPUT SELECT to display the connected line in the display window.
- Press SP/LP to select the tape speed, SP or LP.



1 Insert a source tape with its safety tab removed into the other (playback) VCR. Search for the point to start playback and set it to playback pause.
2 Insert a tape with its safety tab in place into this (recording) VCR. Search for the point to start recording and press ❚❚ (pause) to set it to playback pause.
3 Press REC ● on this VCR to set it to recording pause.
4 To start editing, press the ❚❚ (pause) buttons on both VCRs at the same time.

To stop editing

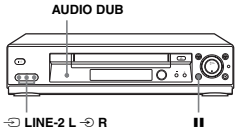
Press the ■ (stop) buttons on both VCRs.

Tip

- To cut out unwanted scenes while editing, press ❚❚ (pause) on this VCR when an unwanted scene begins. When it ends, press ❚❚ (pause) again to resume recording.

Audio dubbing (SLV-SE830N only)

This feature lets you record over the normal audio track. The monaural sound previously recorded is replaced while the original hi-fi sound remains unchanged. Use this feature to add commentary to a tape that you have recorded with a camcorder.



Before you start...

- Open the LINE-2 L R jacks cover on the front panel and connect a playback source.
- Turn on the TV and set it to the video channel.

1 Insert a source tape into your stereo system (or the playback VCR). Search for the point to start playback and set it to playback pause.
2 Insert a prerecorded tape with its safety tab in place into this (recording) VCR. Search for the start of the section to be replaced and press ❚❚ (pause).

The VCR enters pause mode.

3 Press AUDIO DUB.

"A_DUB" and the ○ indicator appears in the display window.

4 To start editing, press the ❚❚ (pause) buttons on this VCR and the stereo system (or other VCR) at the same time.

After you use this feature, the audio in playback mode is automatically set to monaural.

To stop editing

Press ■ (stop) on this VCR and the stereo system (or other VCR).

Troubleshooting

If you have any questions or problems not covered below, please consult your nearest Sony service facility.

	Symptom	Remedy
Power	The I/⏻ (on/standby) switch does not function.	• Connect the mains lead to the mains securely.
	The power is turned on but the VCR does not operate.	• Moisture condensation has occurred. Turn the power off, unplug the mains lead and leave the VCR to dry for over three hours.
	The VCR is plugged in but the display window remains dark.	• Set POWER SAVE in the USER SET menu to OFF (see page 69).
Clock	The clock has stopped and "– –:– –" appears in the display window.	• The clock stops if the VCR is disconnected from the mains. Reset the clock (and timer).
Playback	The playback picture does not appear on the TV screen.	• Make sure the TV is set to the video channel. If you are using a monitor, set it to video input. • If the VCR is connected to the TV with the Scart cable, make sure the VIDEO indicator is lit in the display window. Use the ⇄ TV/VIDEO button on the remote commander to light up the VIDEO indicator.
	The picture is not clear.	• Existing broadcasts may interfere with the VCR. Reset the RF channel output of your VCR (see page 22). • Adjust the tracking with the PROGRAM +/– buttons on the VCR. • The video heads are dirty (see the last page of Troubleshooting). Clean the video heads using a Sony video head cleaning cassette. If a Sony cleaning cassette is not available in your area, have the heads cleaned at your nearest Sony service facility (a standard service charge will be required). Do not use a commercially available liquid type cleaning cassette other than Sony's, as it may damage the video heads. • The video heads may have to be replaced. Consult your local Sony service facility for more information.
	The picture has no colour.	• The COLOUR SYSTEM option in the USER SET menu is set to the wrong position. Set the option to conform to the system that the tape was recorded in.
	The picture rolls vertically during picture search.	• Adjust the vertical hold control on the TV or monitor.

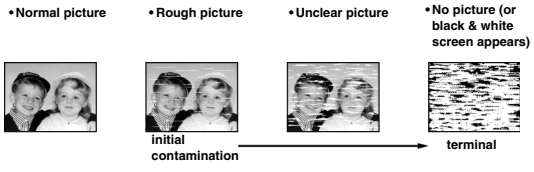
	Symptom	Remedy
Playback	The picture has no sound.	• The tape is defective. • If you made A/V connections, check the audio cable connection.
	The sound from a tape recorded with the VCR is not in stereo or the STEREO indicator in the display window is flashing.	• Adjust the tracking. • The video heads are dirty. Clean the video heads using a Sony video head cleaning cassette as explained above.
Recording	No TV programme appears on the TV screen.	• Make sure the TV is set to the video channel. If you are using a monitor, set it to video input. • Existing broadcasts may interfere with the VCR. Reset the RF channel output of your VCR (see page 22). • Select the correct source with the INPUT SELECT button. Select a programme position when recording TV programmes; select a line input when recording from other equipment.
	TV reception is poor.	• Make sure the aerial cable is connected securely. • Adjust the TV aerial. • Make sure the TV system is correctly set for your TV. • Make sure TV SYSTEM (B/G or D/K) in the INSTALLATION menu is set to the same system in your local area.
	The tape starts playing as soon as it is inserted.	• The safety tab has been removed. To record on this tape, cover the tab hole (see page 44).
	The tape is ejected when you press ● REC.	• The safety tab has been removed. To record on this tape, cover the tab hole (see page 44).
	Nothing happens when you press ● REC.	• Make sure the tape is not at its end.
Timer recording	The timer does not operate.	• Check that the clock is set. • Make sure a tape has been inserted. • Check that the safety tab has not been removed. • Make sure the tape is not at its end. • Make sure a programme has been set for timer recording. • Make sure your timer settings are past the current time. • Check that the decoder is turned on. • Check that the satellite tuner is turned on. • The clock stops if the VCR is disconnected from the mains. Reset the clock and timer. • Turn the power off and unplug the mains lead.

continued

	Symptom	Remedy
Timer recording	The SHOWVIEW menu or the TIMER PROGRAMMING menu does not appear.	• Check that TIMER METHOD in the EASY OPERATION menu is set correctly (see page 71).
	The VPS/PDC function does not operate properly.	• Check that the clock and the date are set correctly. • Check that the VPS/PDC time you set is the correct one (there might be a mistake in the TV programme guide). If the broadcast you wanted to record did not send the good VPS/PDC information, the VCR will not start recording. • If the reception is poor, the VPS/PDC signal might be altered and the VCR might not start recording.
Canal Plus	You cannot watch Canal Plus programmes when the VCR is in standby mode.	• Check that DEC is set to ON for this channel in the TV STATION TABLE menu. • Make sure the Canal Plus Scart cable is plugged securely.
	A Canal Plus programme is always recorded scrambled.	• Make sure the Canal Plus Scart cable is plugged securely. • Check that DEC is set to ON for this channel in the TV STATION TABLE menu.
Others	A tape cannot be inserted.	• Check that a tape is not already in the tape compartment.
	The remote commander does not function.	• Make sure you are pointing the remote commander at the remote sensor on the VCR. • Replace all the batteries in the remote commander with new ones if they are weak. • Make sure the TV / VIDEO remote control switch is set correctly.
	The selected input line connector number does not appear in the display window.	• Press INPUT SELECT to display the connected line.
	The tracking meter does not appear on the TV screen.	• The recording condition of the tape is very poor and tracking cannot be adjusted.
	You cannot control other TVs.	• Set your TV's code number. The code number may change when you replace the batteries of the remote commander.
	The display window becomes dim.	• The display window automatically becomes dim when the VCR is in standby or timer recording mode.
	The VCR needs to be cleaned.	• Clean the cabinet, panel and controls with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine.

	Symptom	Remedy
Others	The Line Through function does not operate.	• Set POWER SAVE in the USER SET menu to OFF (see page 69).

Symptoms caused by contaminated video heads



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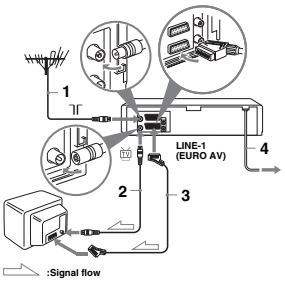
Quick Start Guide

1 Connecting the VCR



1 ... Connect the aerial to ⅂ of the VCR.

2 ... Connect 📺 and the aerial input of your TV using the supplied aerial cable.

3 ... For better picture and sound, connect LINE-1 (EURO AV) to your TV using a Scart cable if your TV has a Scart (EURO-AV) connector.

4 ... Connect the mains lead to the mains.

2 Using the Auto Set Up function

1 ... Turn on your TV and set it to the video channel.

If your TV does not have a Scart (EURO-AV) connector, tune the TV to channel 32 (the initial RF channel of this VCR). Refer to your TV's manual for TV tuning instructions. If the picture does not appear clearly, see "To change the RF channel."

2 ... Connect the mains lead to the mains.

3 ... Press ↑/↓/←/→ to select a language, then press OK.

4 ... When the COUNTRY SELECTION menu appears, press ↑/↓/←/→ to select a country, then press OK.

When all of the receivable channels are preset, the menu disappears from the TV screen. You can rearrange the programme position in any order (see "Changing/disabling programme positions").

3 Setting the clock

1 ... Press MENU, then press ↑/↓/←/→ to highlight CLOCK SET and press OK.

2 ... Press ↑/↓ to set the hour, then press →.

3 ... Press ↑/↓ to set the minutes. Set the day, month, and year in sequence by pressing → to select the item to be set, and press ↑/↓ to select the digits, then press OK.

4 ... Press MENU.

Now you can operate your VCR.

Sony Corporation

http://www.sony.net/
AC68-01981L

2. DISASSEMBLY

2-1 MONO MODELS

2-1-1 Cabinet Top

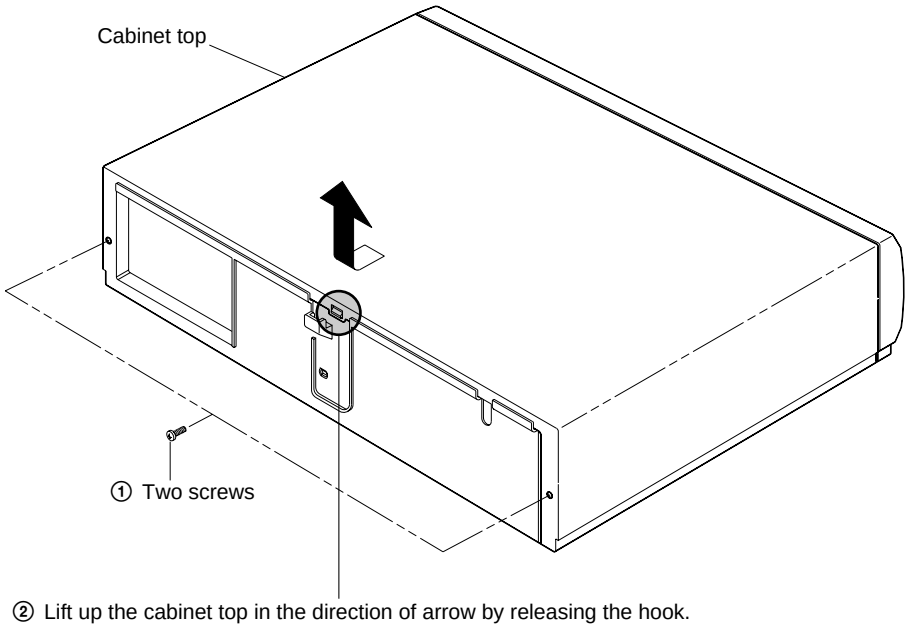


Fig. 2-1 Cabinet Top

2-1-2 Cover Bottom

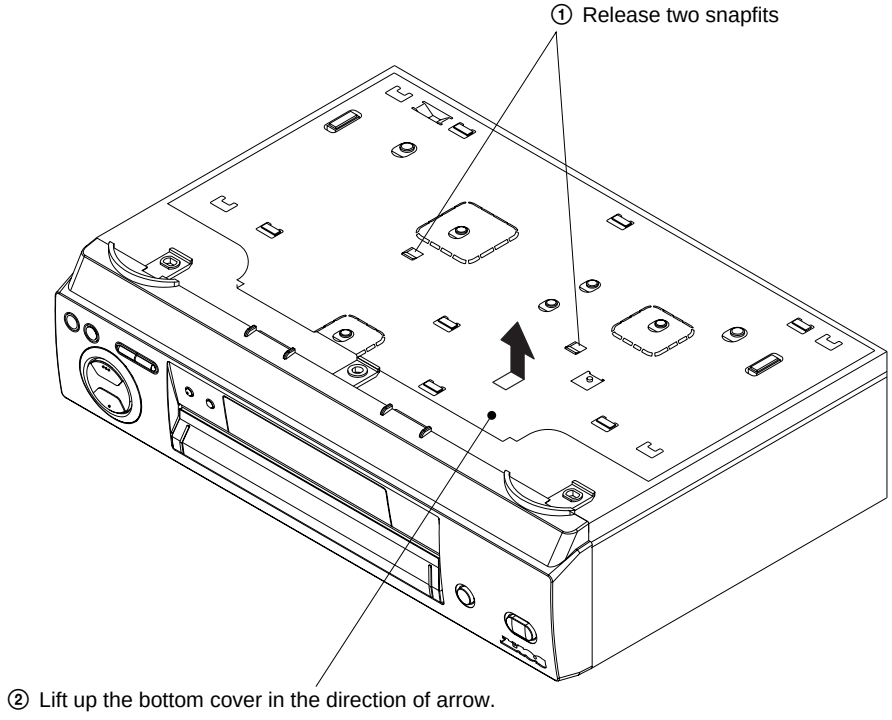


Fig. 2-2 Cover Bottom

2-1-3 Ass'y-Panel Front

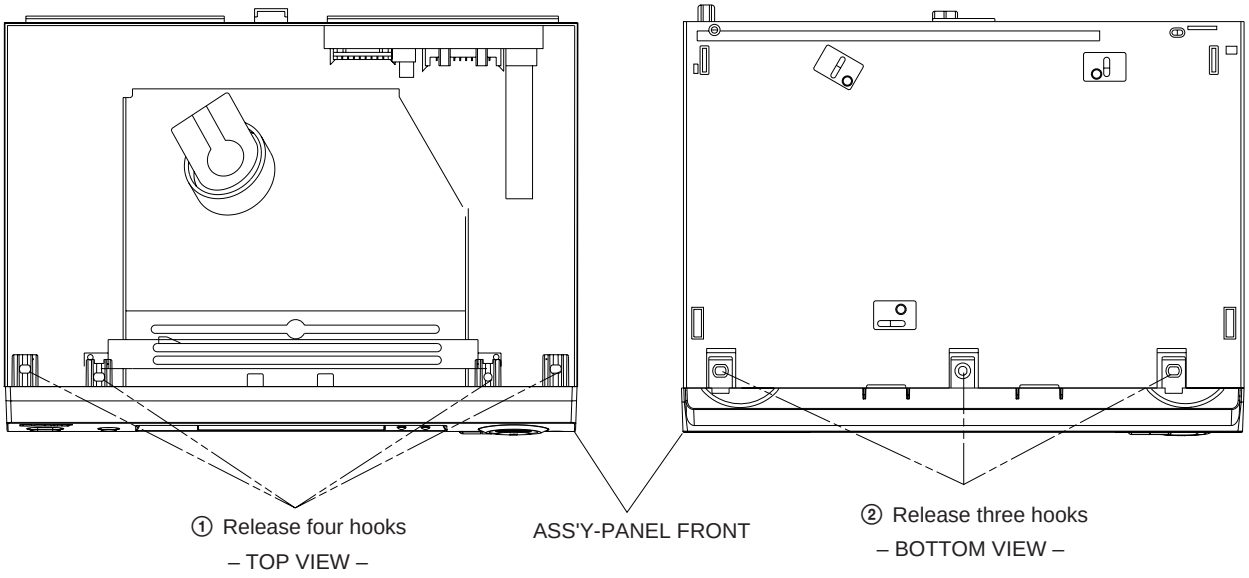


Fig. 2-3 Ass'y-Panel Front

2-1-4 ASS'Y Main PCB, Deck

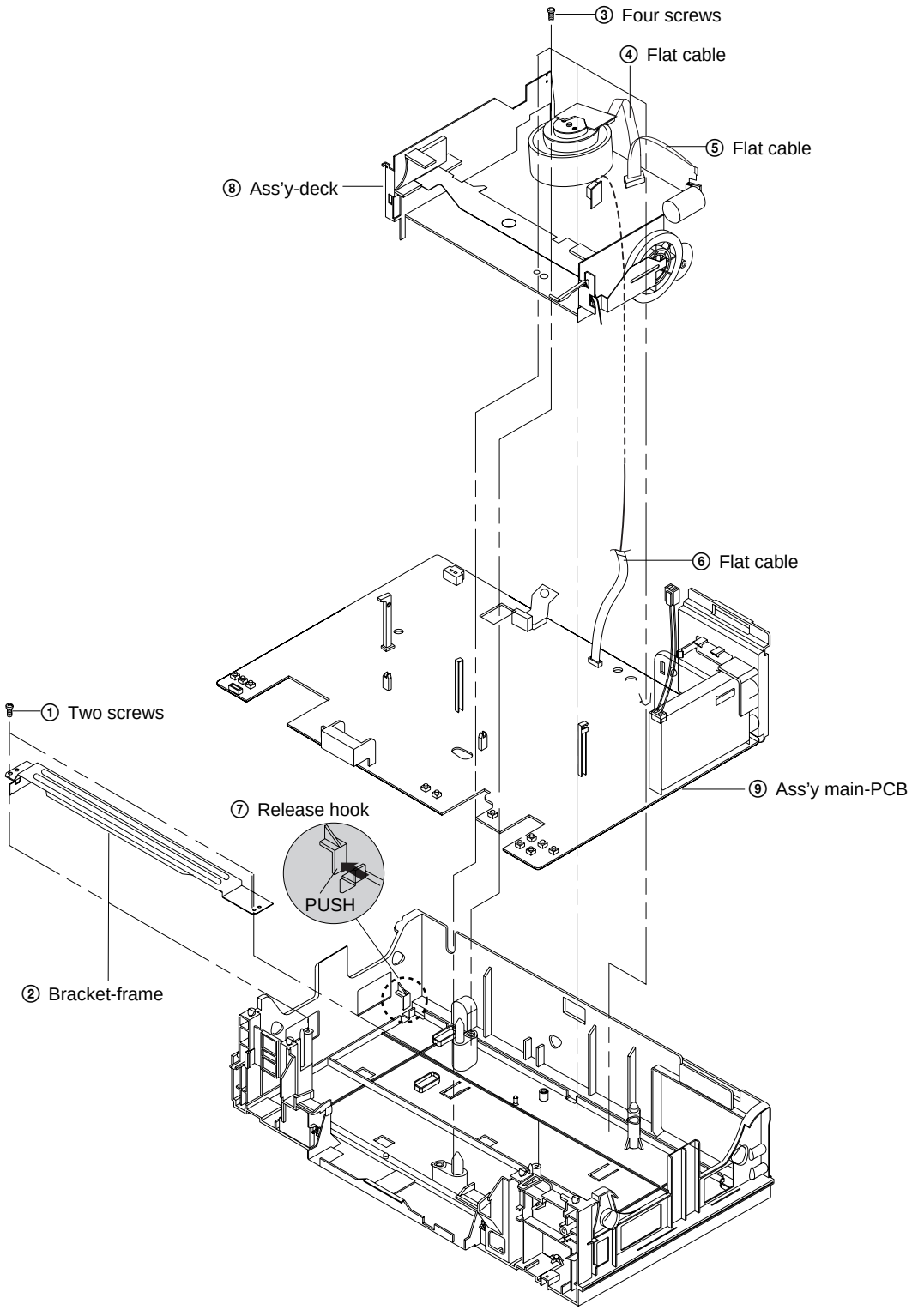


Fig. 2-4 Ass'y Main-PCB, Deck

2-2 Hi-Fi MODELS

2-2-1 Cabinet Top

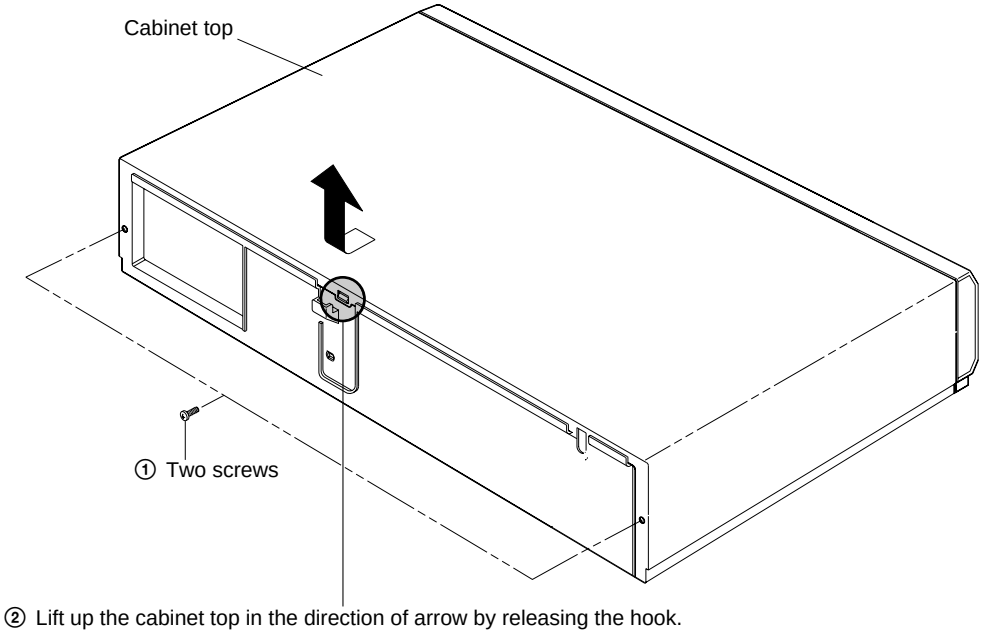


Fig. 2-5 Cabinet Top

2-2-2 Cover Bottom

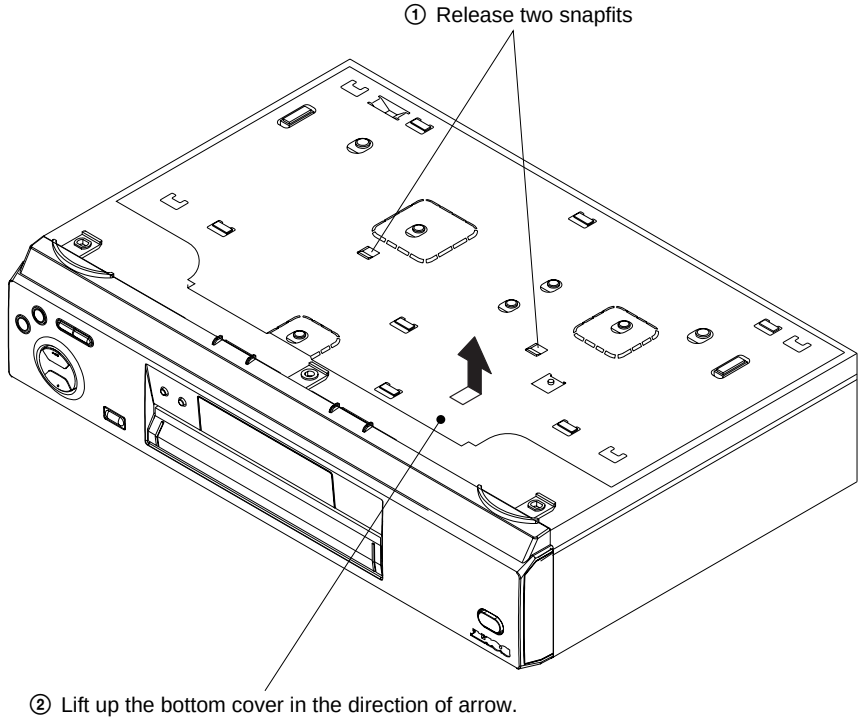


Fig. 2-6 Cover Bottom

2-2-3 Ass'y-Panel Front

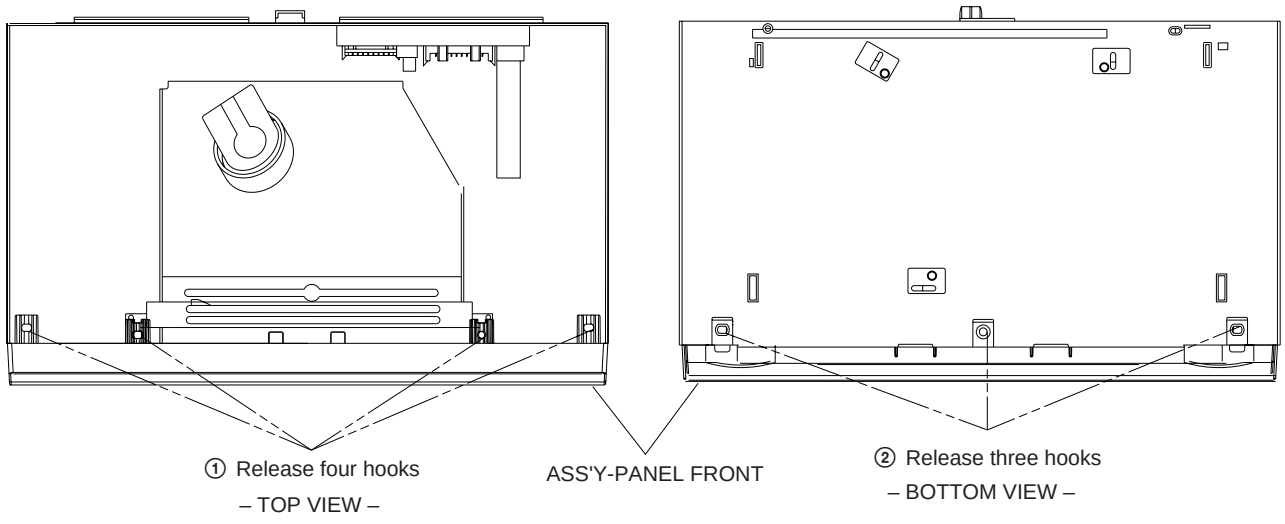


Fig. 2-7 Ass'y-Panel Front

2-2-4 Ass'y Jack PCB

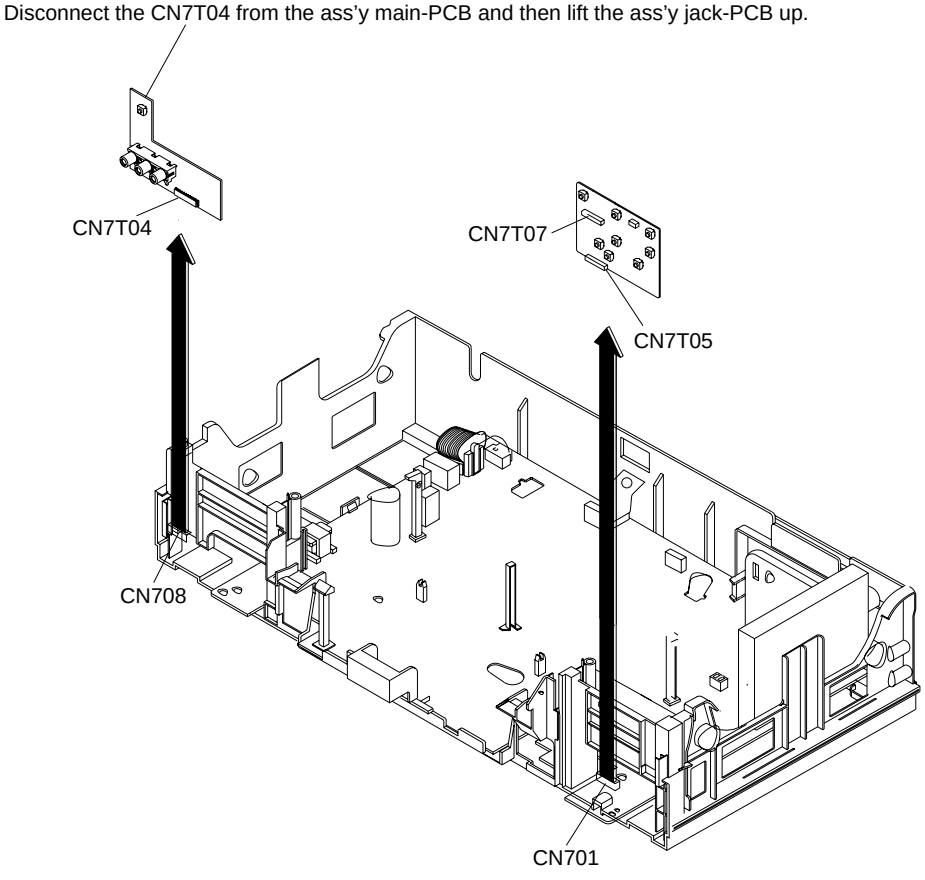


Fig. 2-8 Ass'y Jack-PCB

2-2-5 Ass'y, Main-PCB, Deck

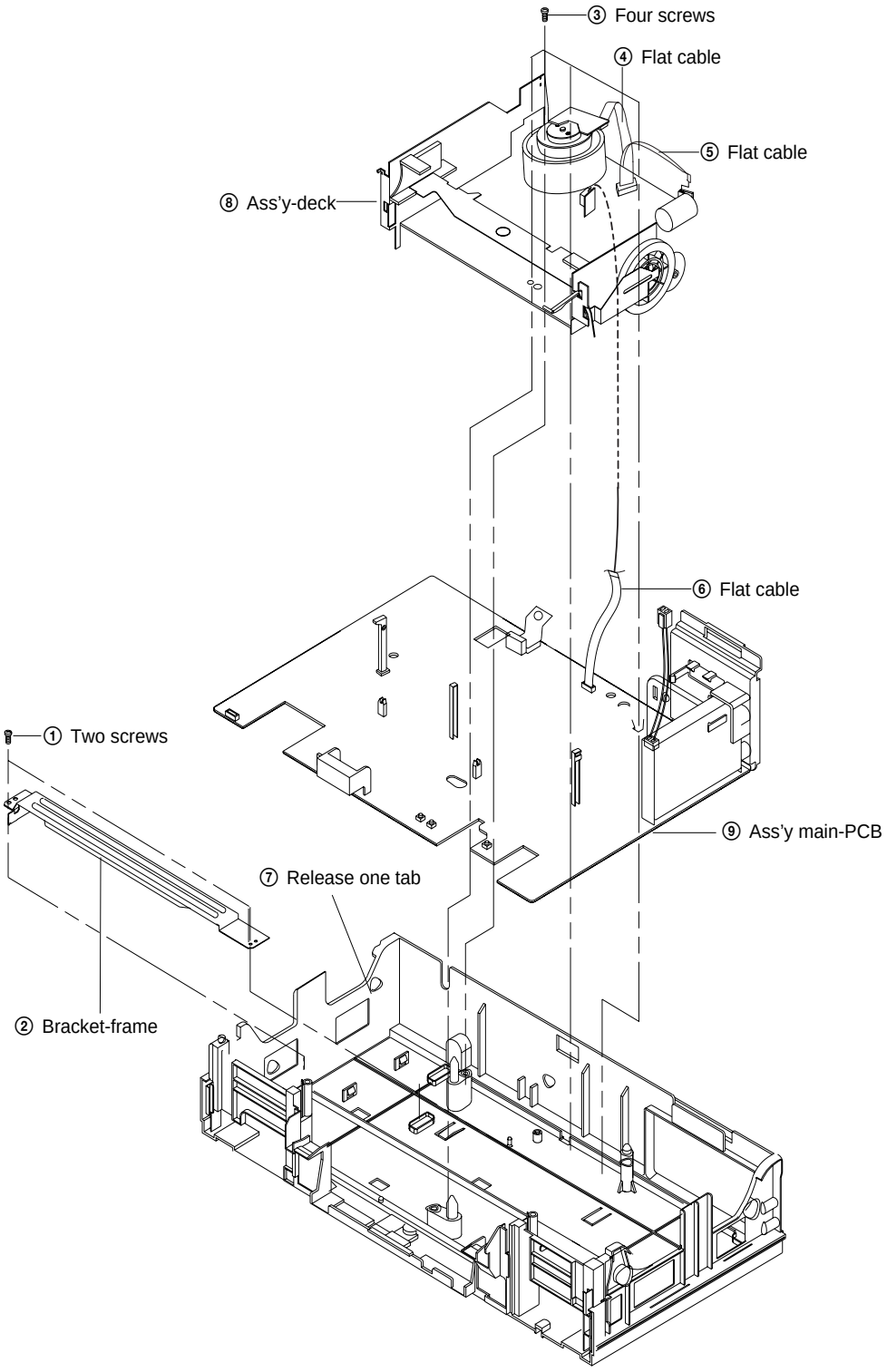


Fig. 2-9 Ass'y Main-PCB, Deck

3. P.C.BOARDS

3-1 Main PCB (Main A model) ---------- 3-3

3-2 Main PCB (Main B model) ---------- 3-7

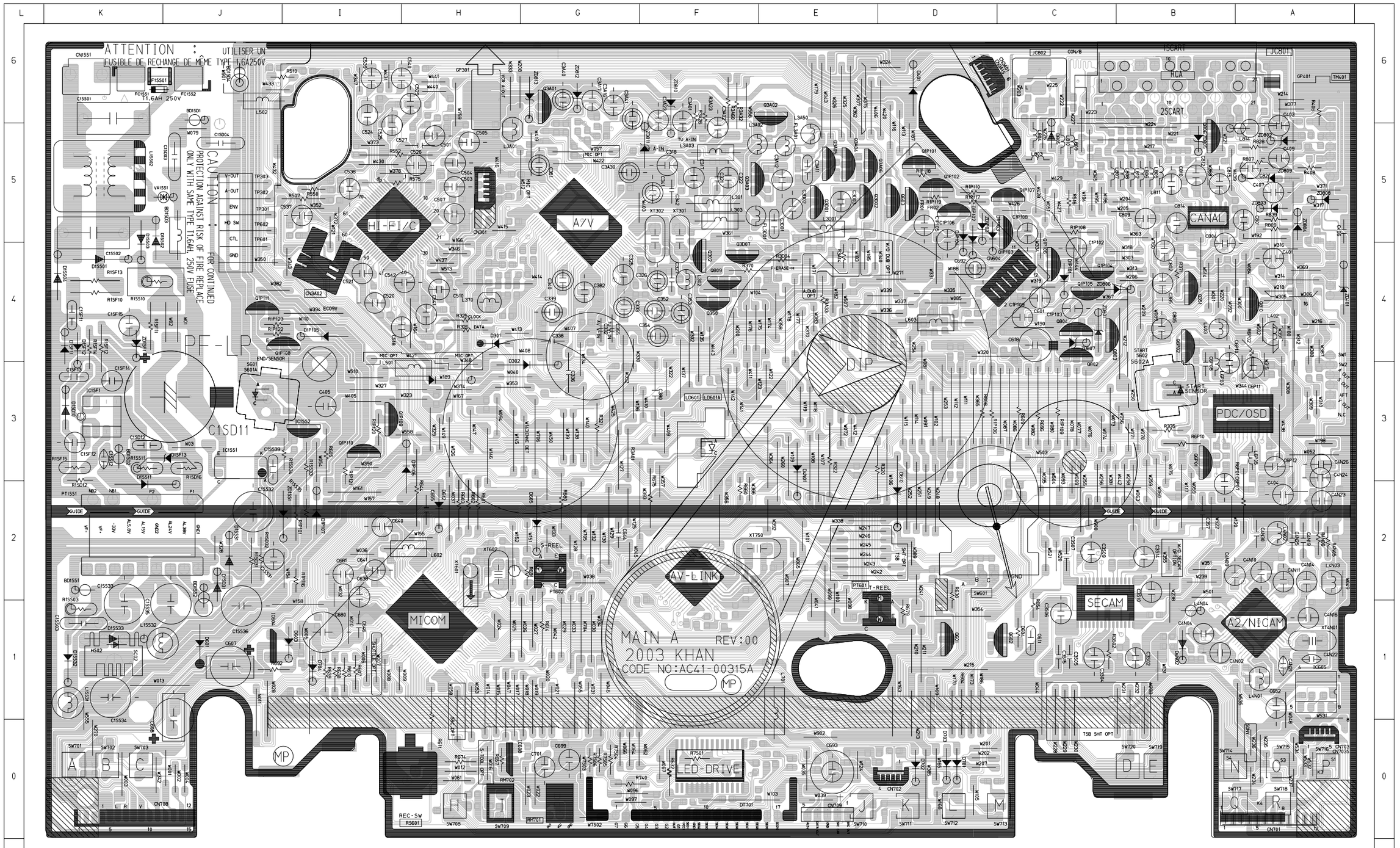
3-3 Function PCB (Hi-Fi model) ---------- 3-11

3-4 Dial Timer PCB (SE830) ---------- 3-11

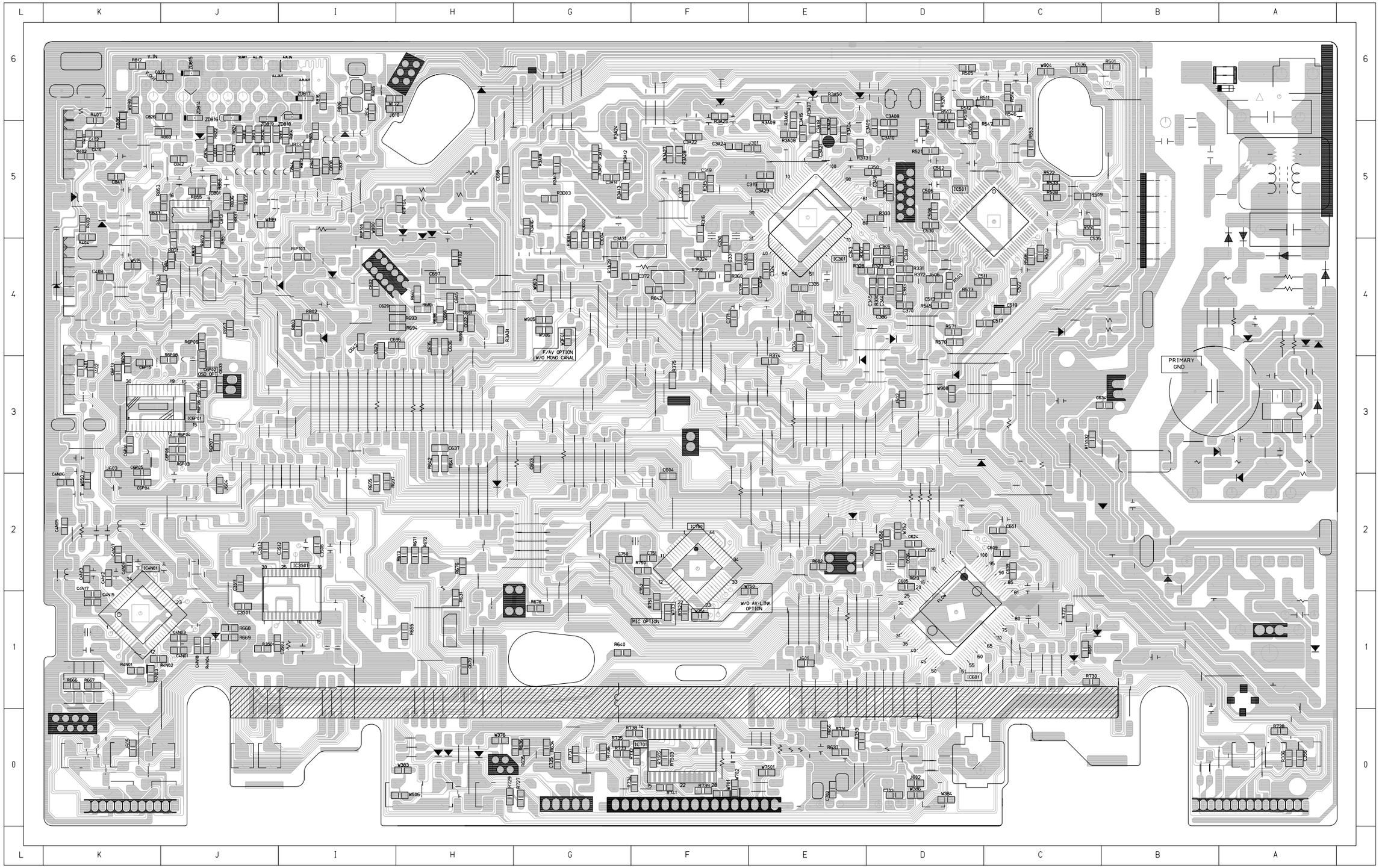
- Main A model: SE230/SE430/SE630
  Main B model: SE730/SE737/SE830/SX730/SX737
  Hi-Fi model: SE630/SE730/SE737/SE830/SX730/SX737
  Mono model: SE230/SE430

3-1 MAIN PCB (Main A model)

COMPONENT SIDE

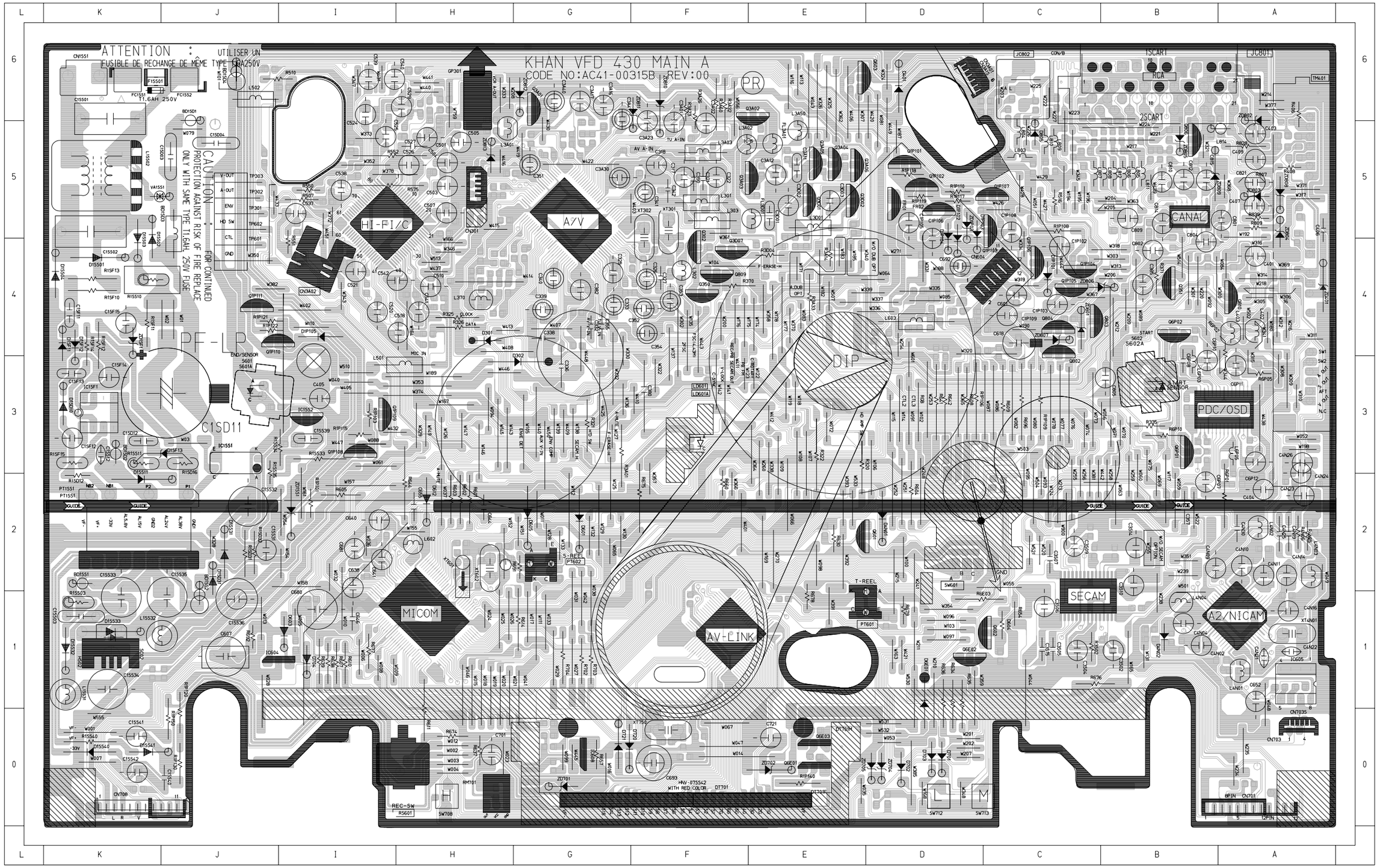


CONDUCTOR SIDE

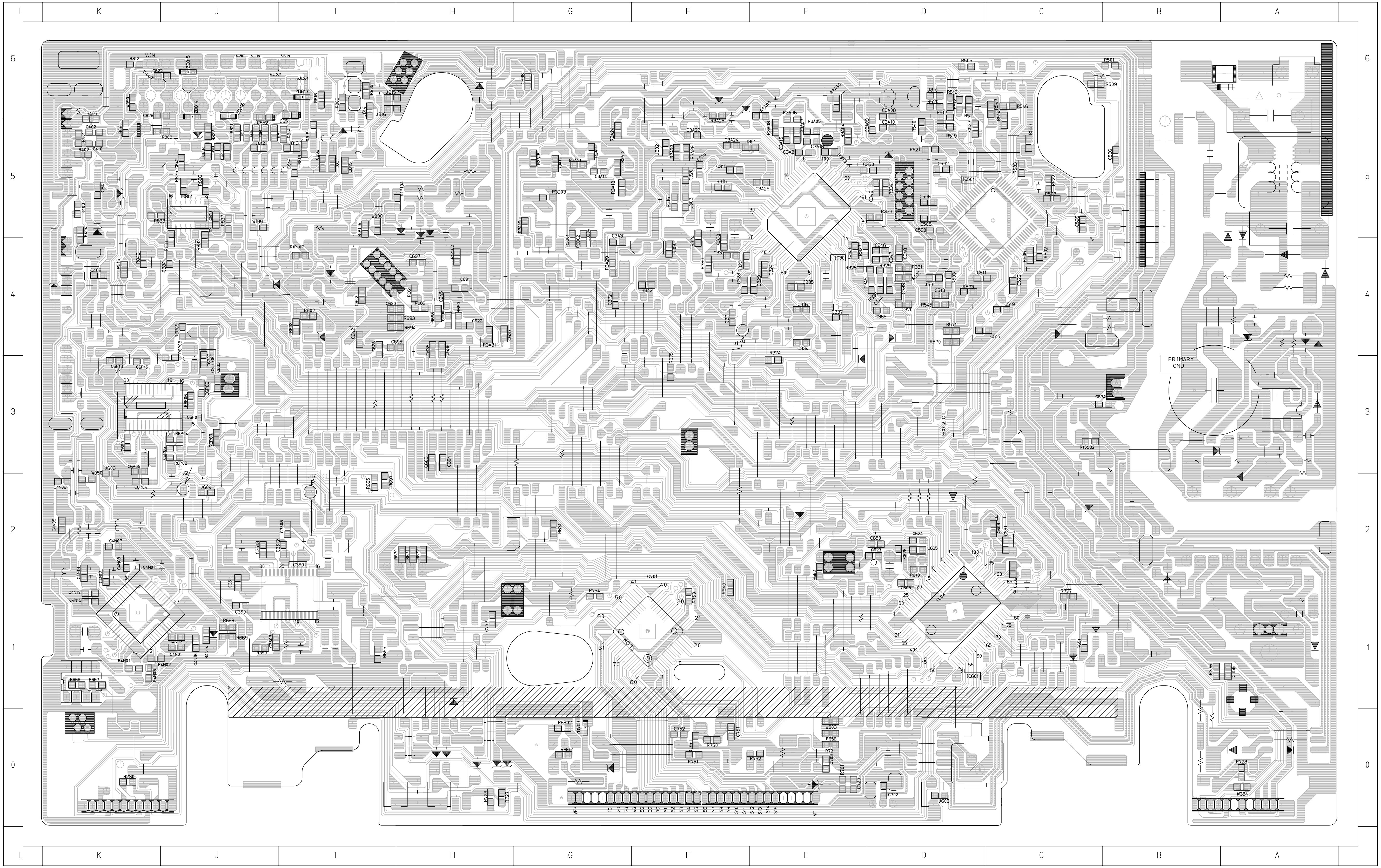


3-2 MAIN PCB (Main B model)

COMPONENT SIDE

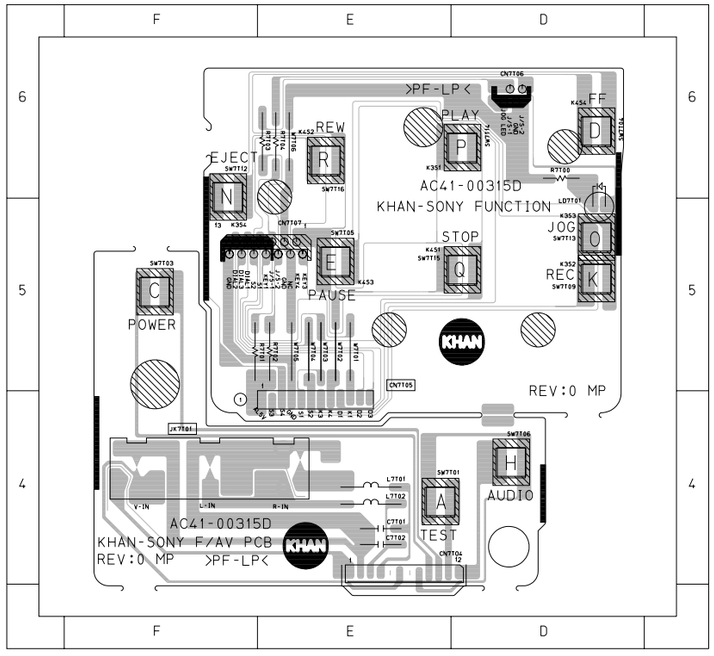


CONDUCTOR SIDE

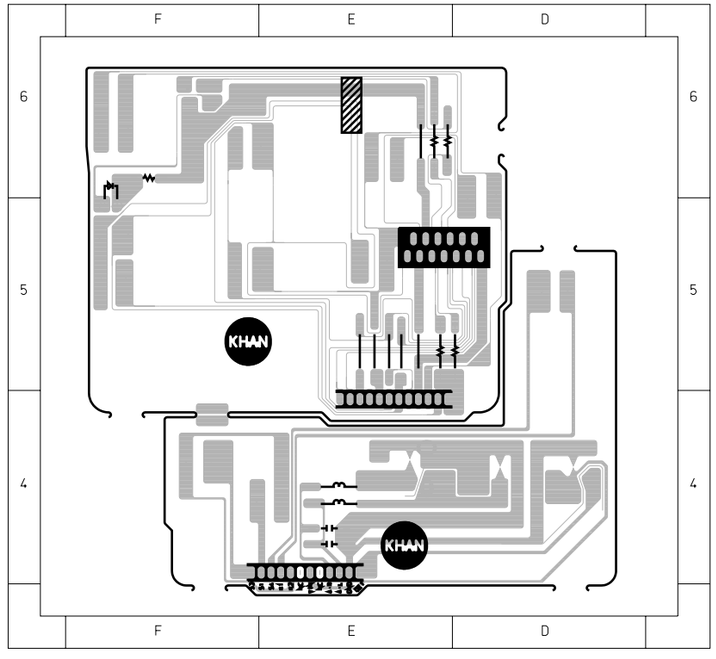


3-3 FUNCTION PCB (Hi-Fi model)

COMPONENT SIDE

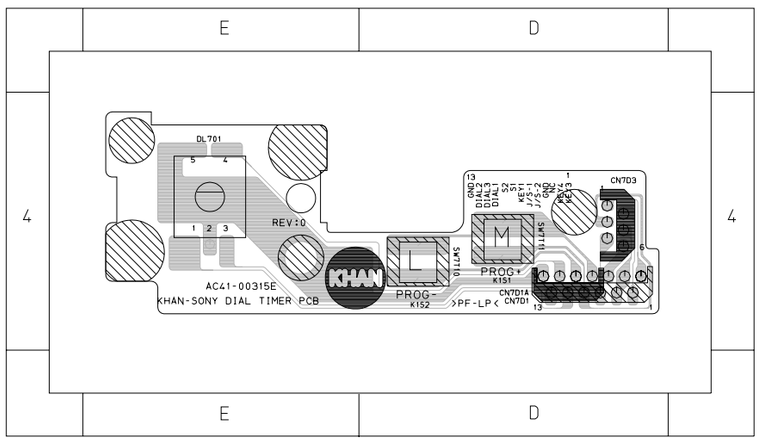


CONDUCTOR SIDE

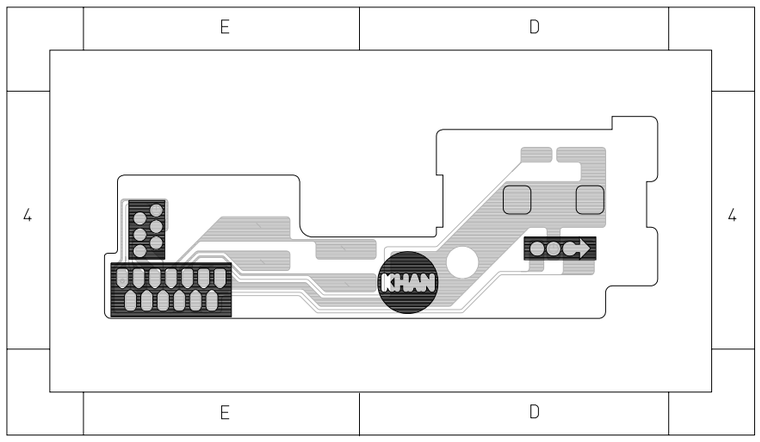


3-4 DIAL TIMER PCB (SE830)

COMPONENT SIDE



CONDUCTOR SIDE



4. SCHEMATIC DIAGRAMS

◆ Block Identification of Main PCB ---------- 4-3

4-1 S.M.P.S. (Main A model) ---------- 4-5

4-2 S.M.P.S. (Main B model) ---------- 4-7

4-3 Power (Main A model) ---------- 4-9

4-4 Power (Main B model) ---------- 4-11

4-5 System Control/Servo (Main A model) ---------- 4-13

4-6 System Control/Servo (Main B model) ---------- 4-15

4-7 Audio/Video ---------- 4-17

4-8 Hi-Fi (Hi-Fi model) ---------- 4-19

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4-10 OSD/VPS/PDC ---------- 4-23

4-11 SECAM (SE230B/SE630B/SE730B/SE830B) ---------- 4-25

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4-13 Input-Output (2 Scart Jack) (Main A model) ---------- 4-29

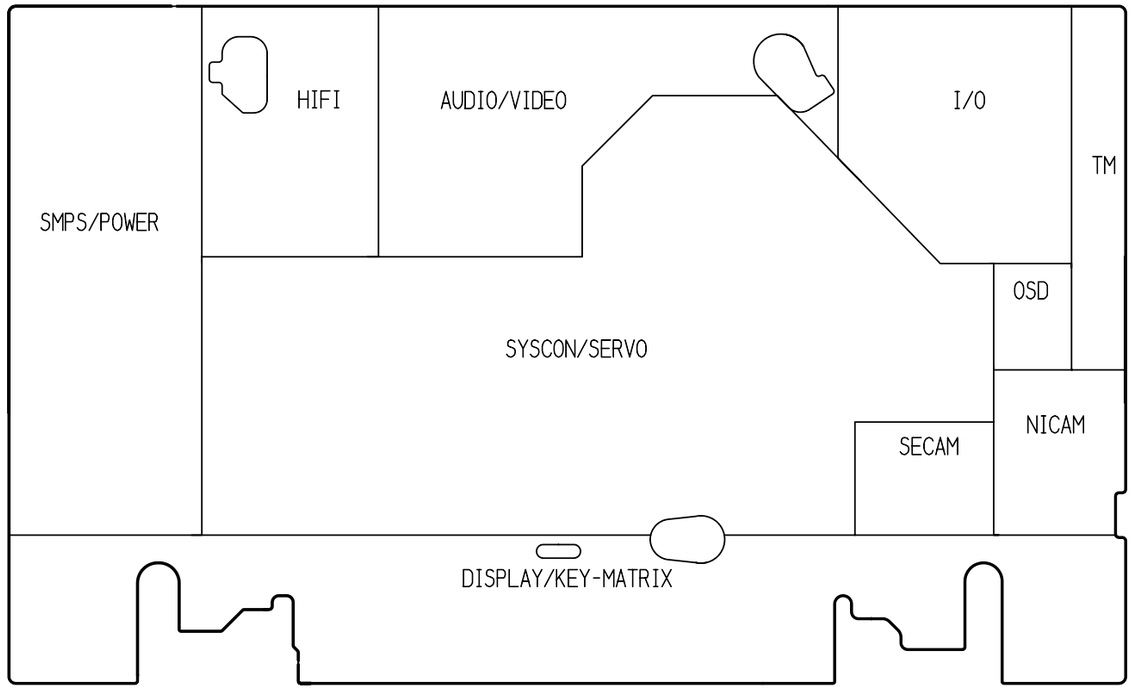
4-14 Input-Output (2 Scart Jack) (Main B model) ---------- 4-31

4-15 Function (SE630) ---------- 4-33

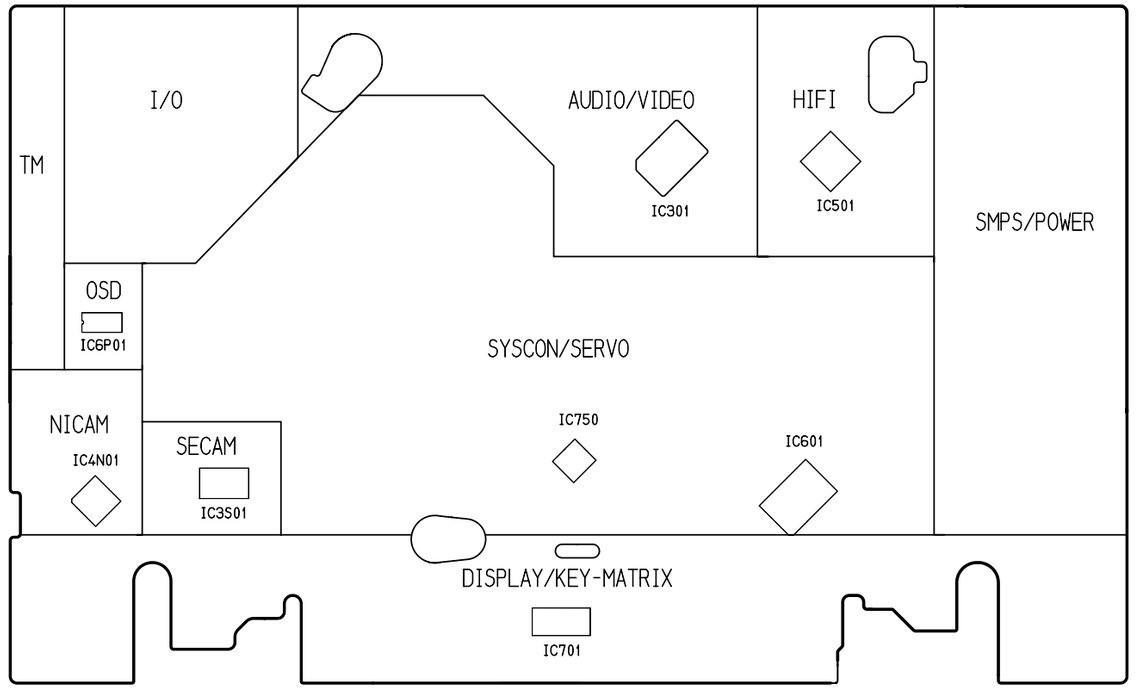
4-16 Function (Main B model) ---------- 4-35

- Main A model: SE230/SE430/SE630
  Main B model: SE730/SE737/SE830/SX730/SX737
  Hi-Fi model: SE630/SE730/SE737/SE830/SX730/SX737
  Mono model: SE230/SE430

◆ BLOCK IDENTIFICATION OF MAIN PCB

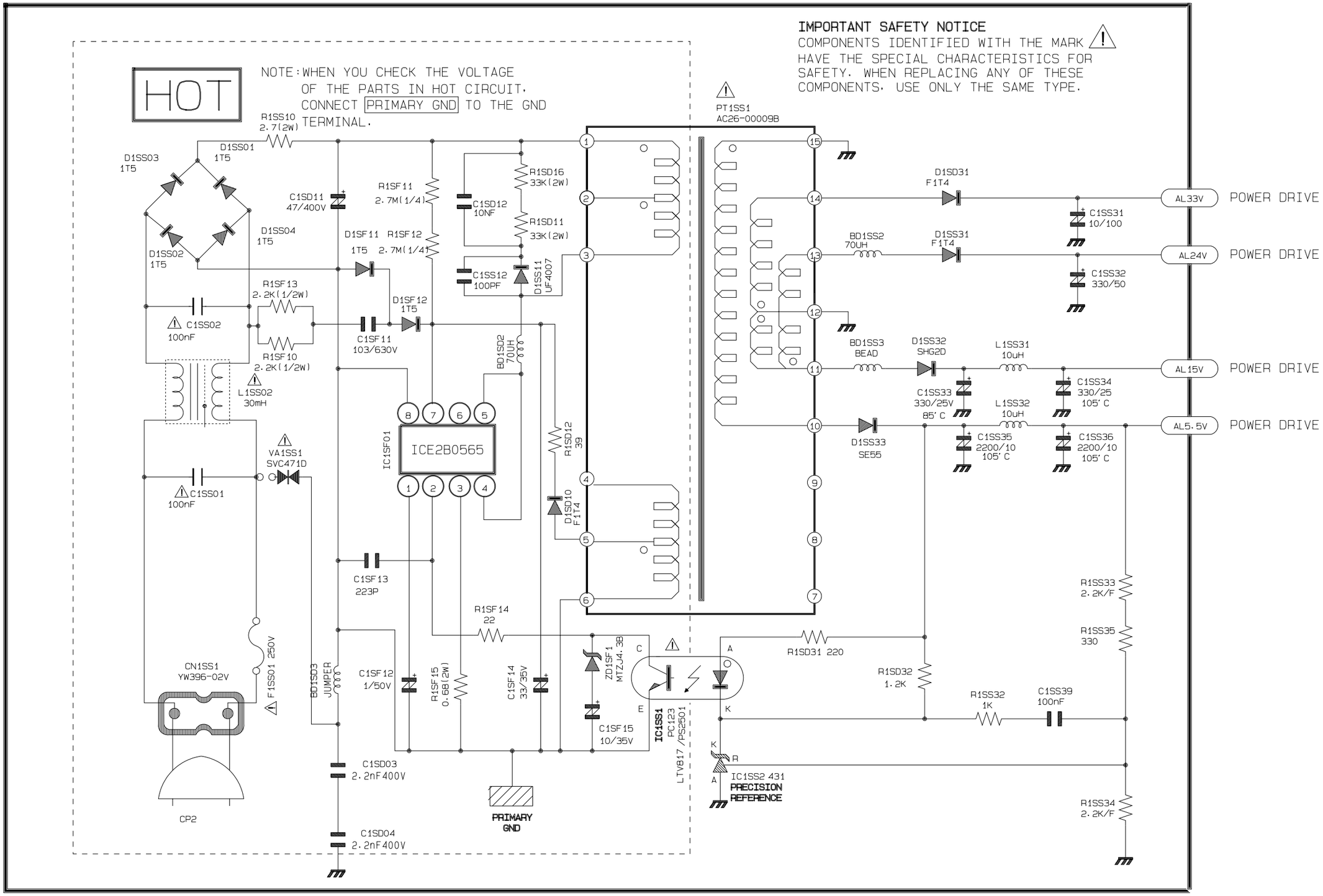


Component Side

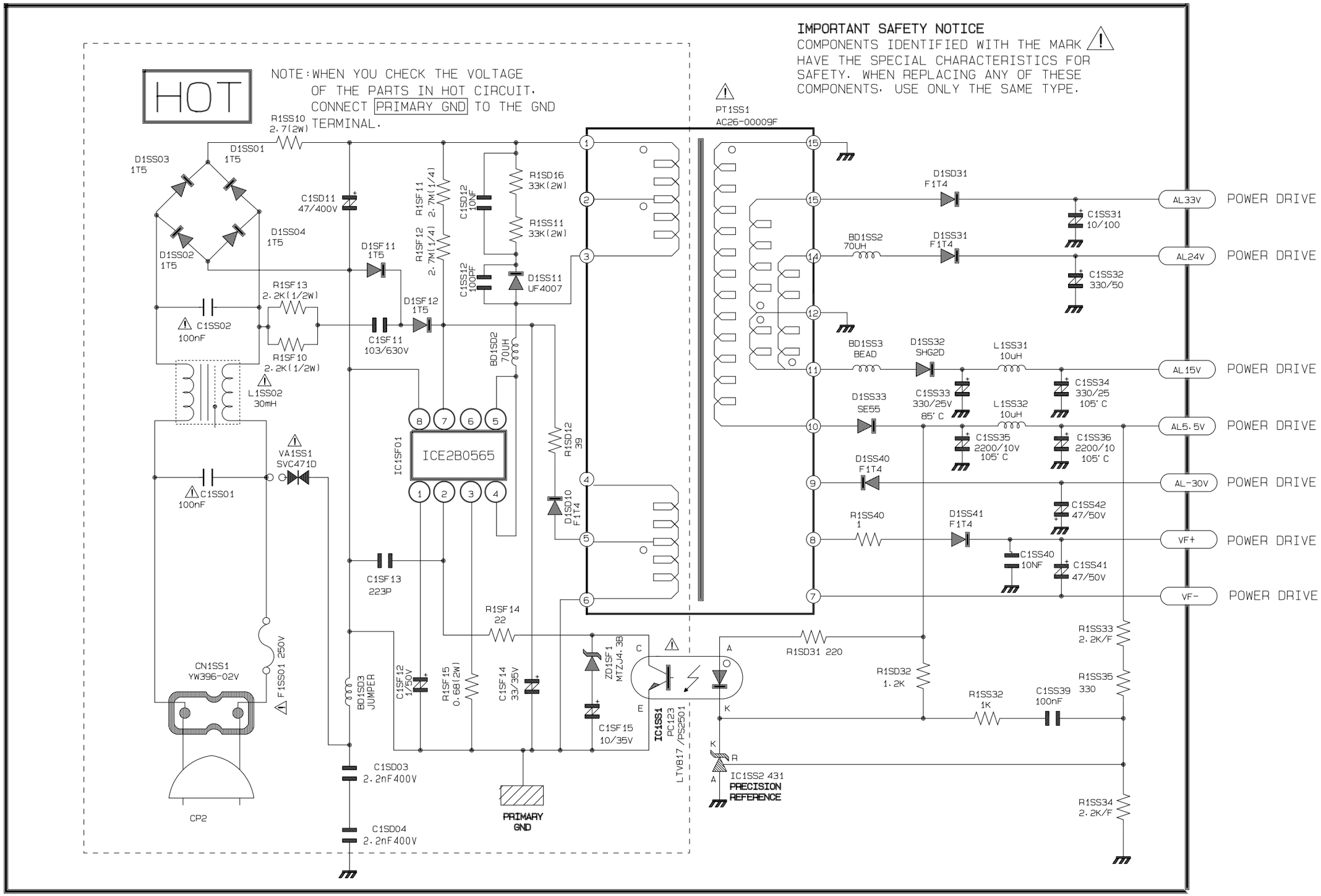


Conductor Side

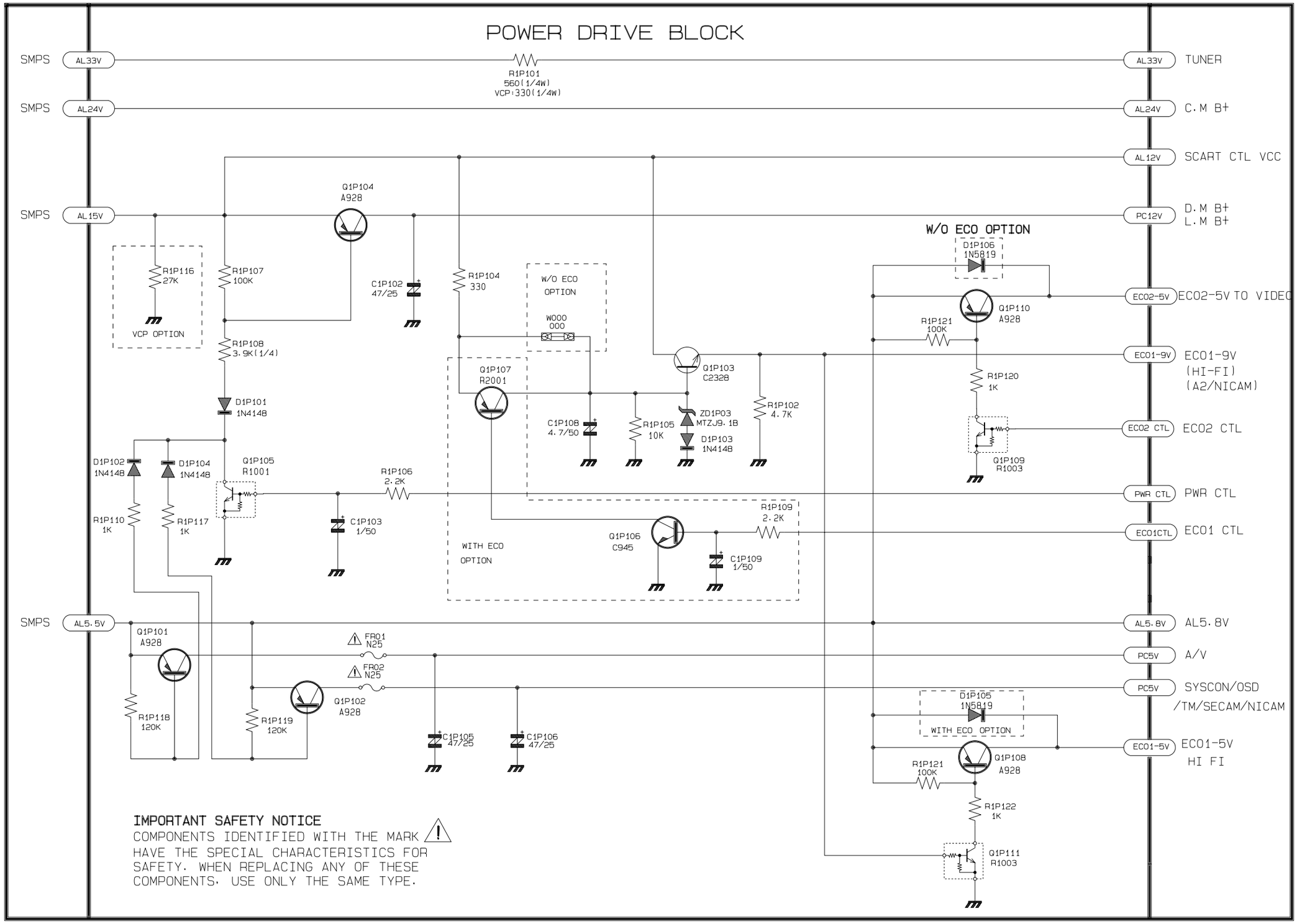
4-1 S.M.P.S. (Main A model)



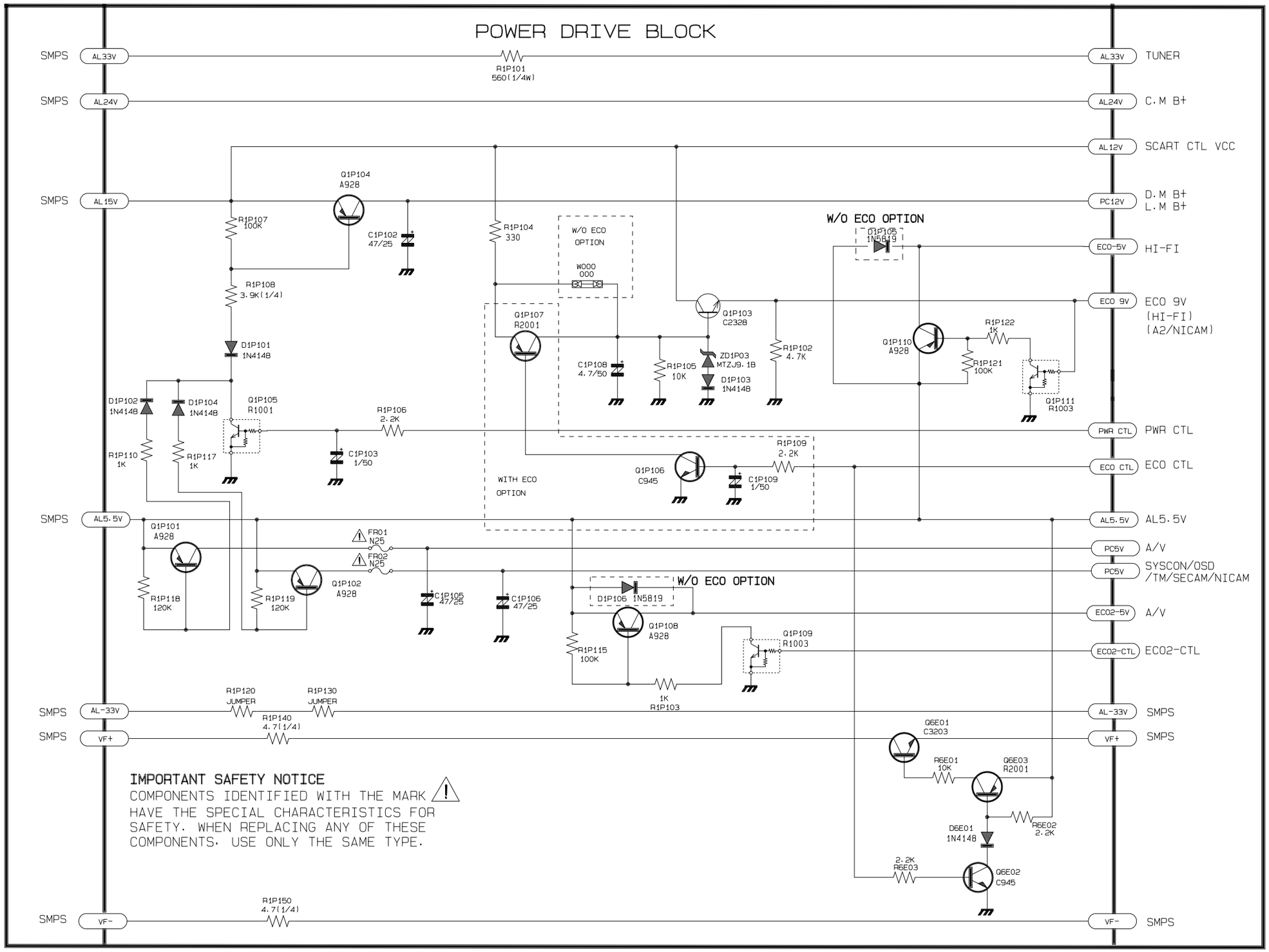
4-2 S.M.P.S. (Main B model)



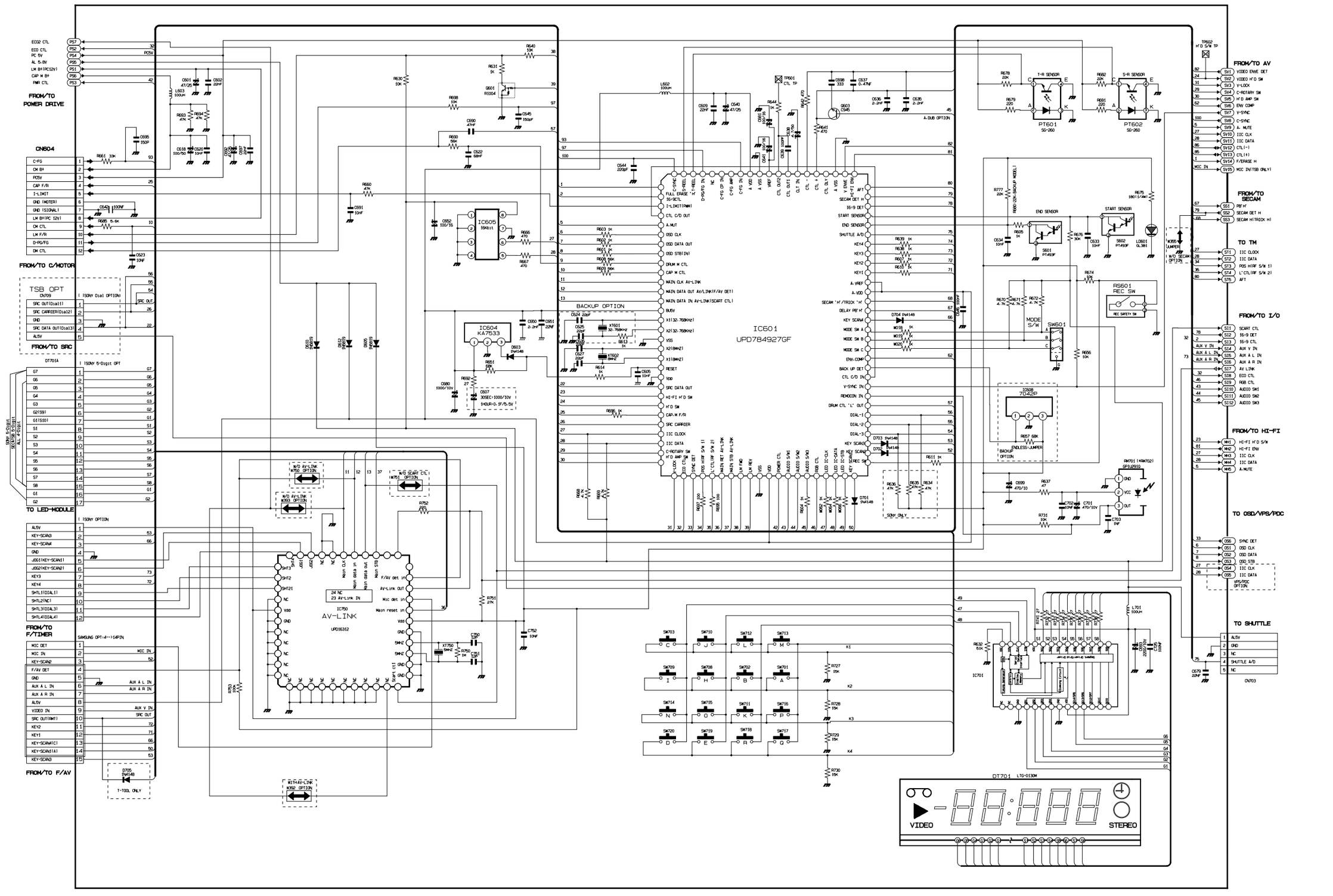
4-3 POWER (Main A model)



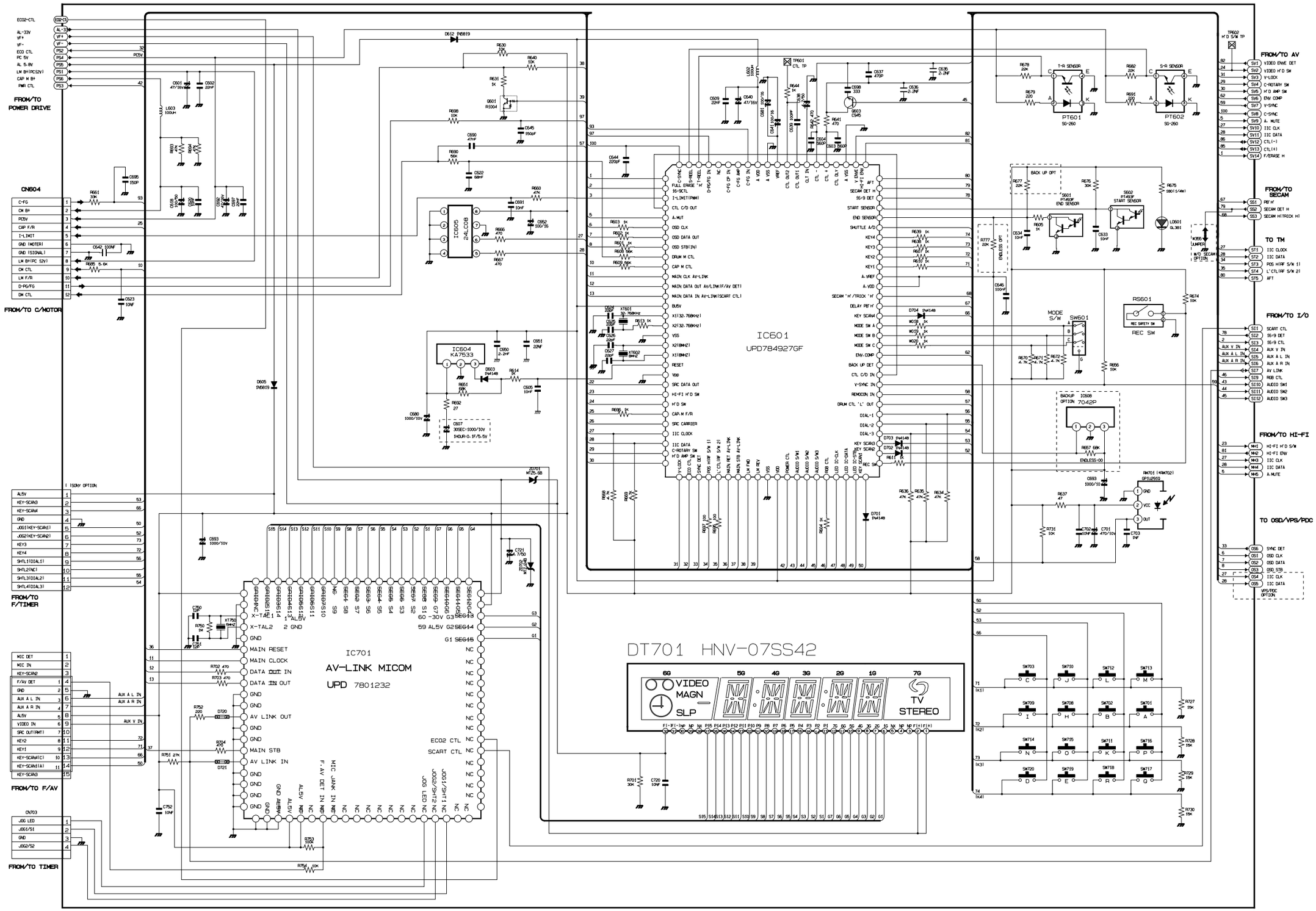
4-4 POWER (Main B model)



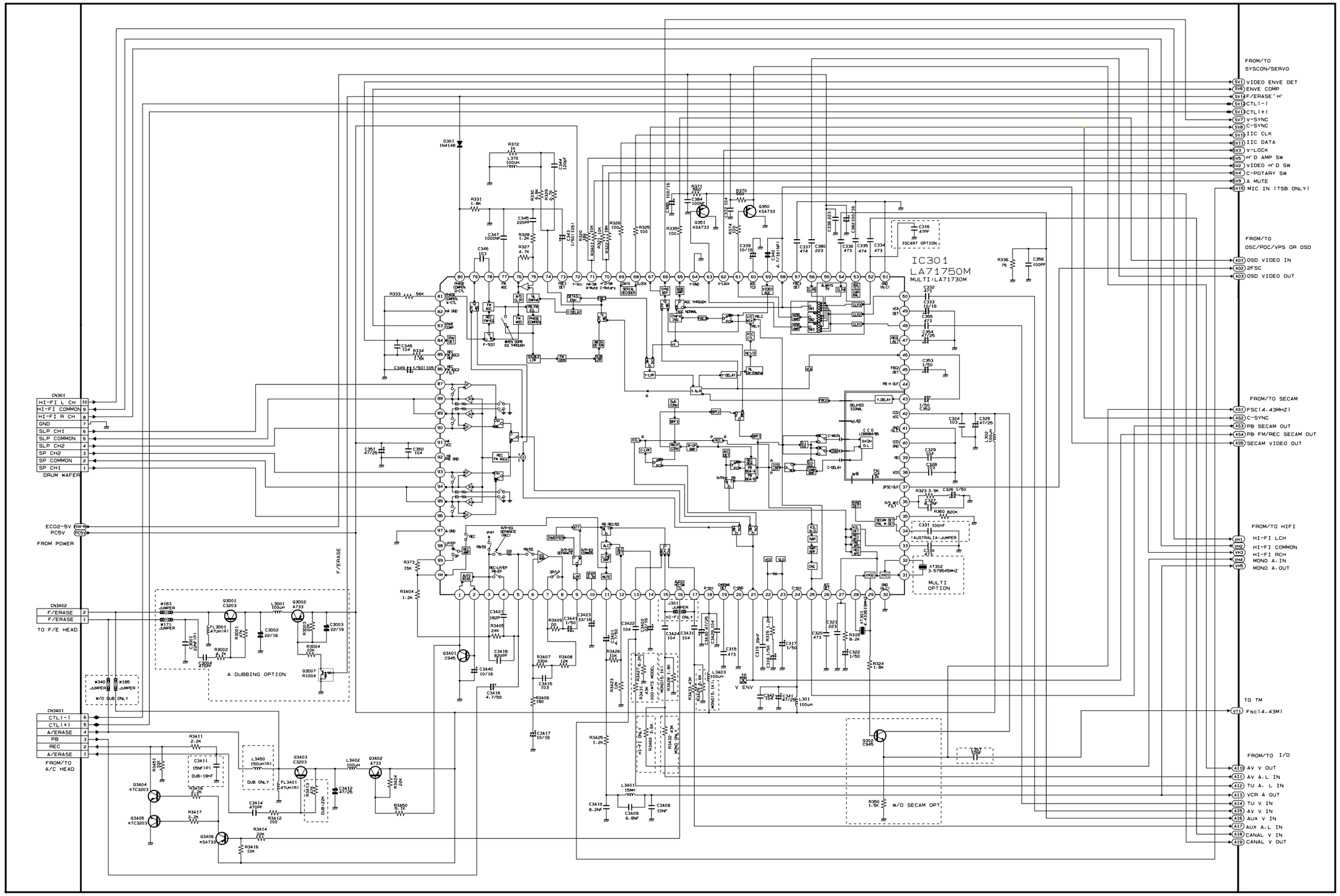
4-5 SYSTEM CONTROL/SERVO (Main A model)



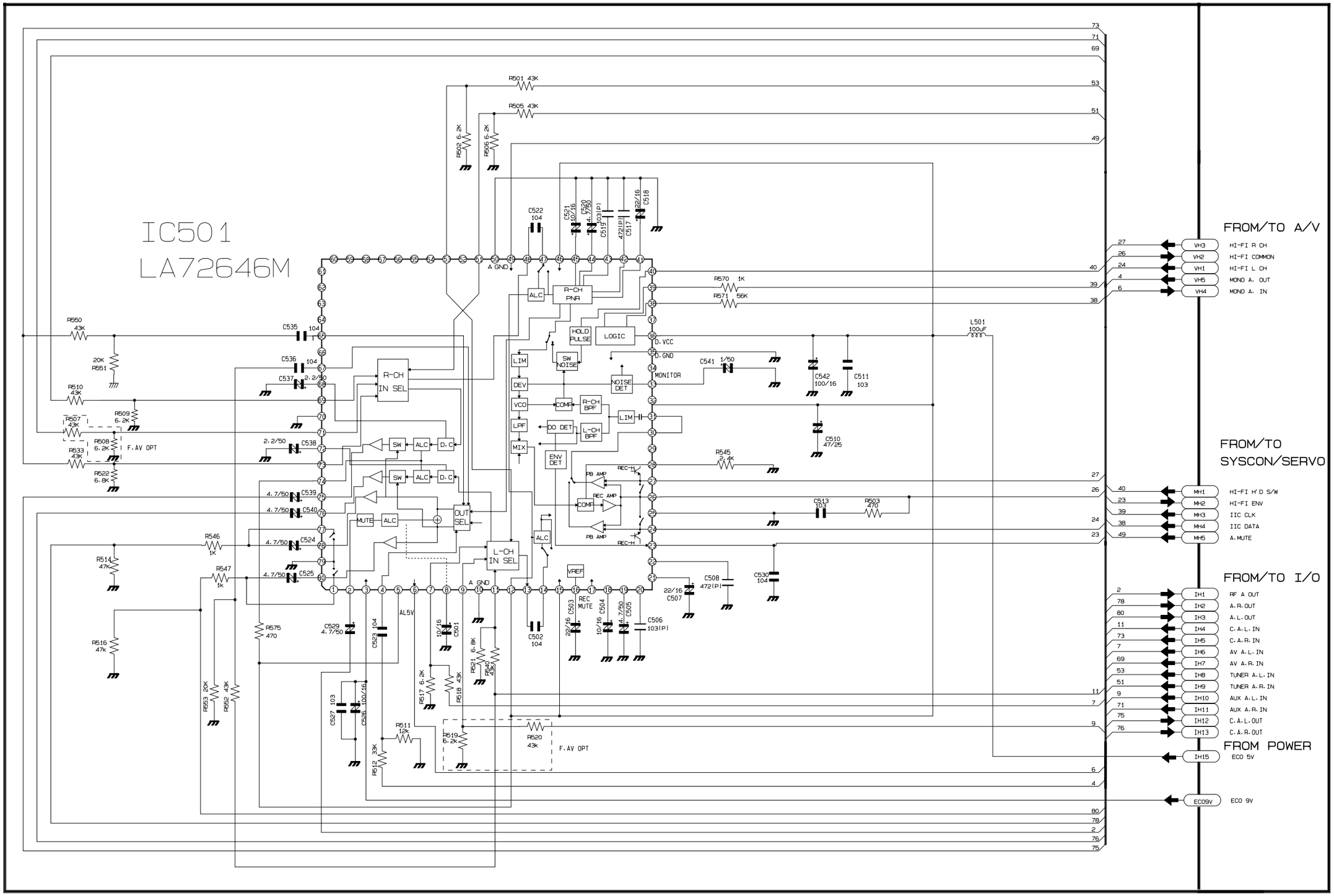
4-6 SYSTEM CONTROL/SERVO (Main B model)



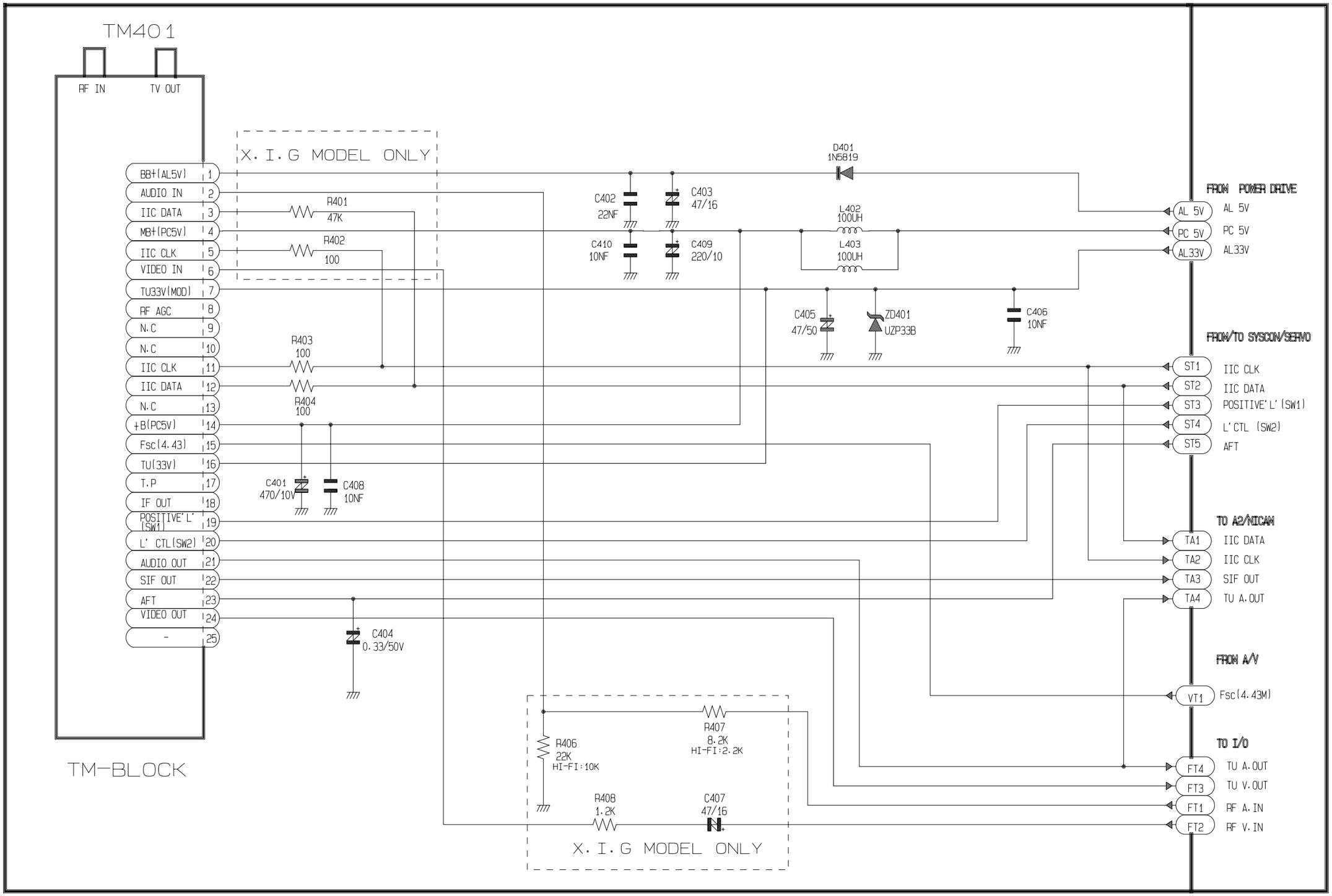
4-7 AUDIO/VIDEO

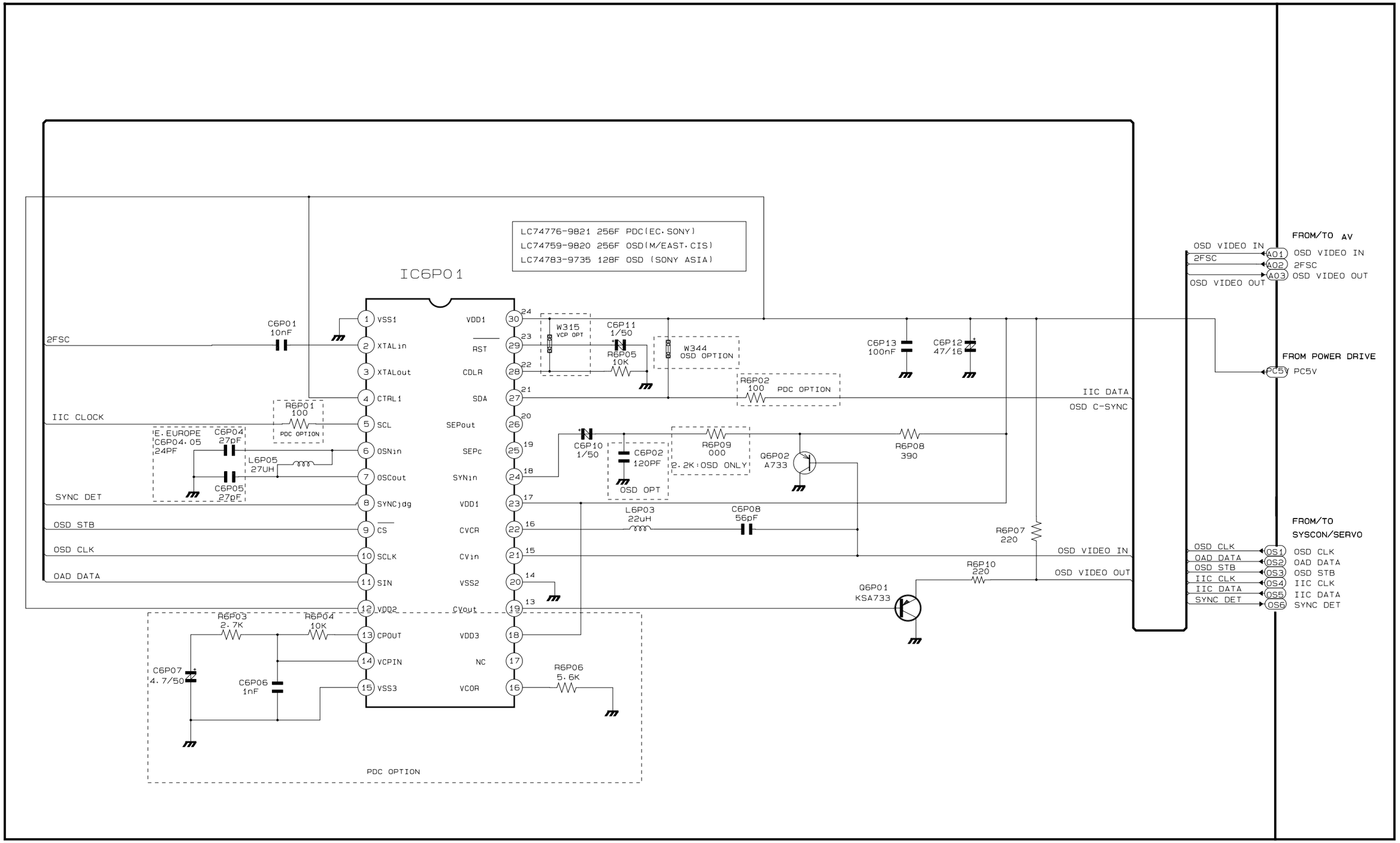


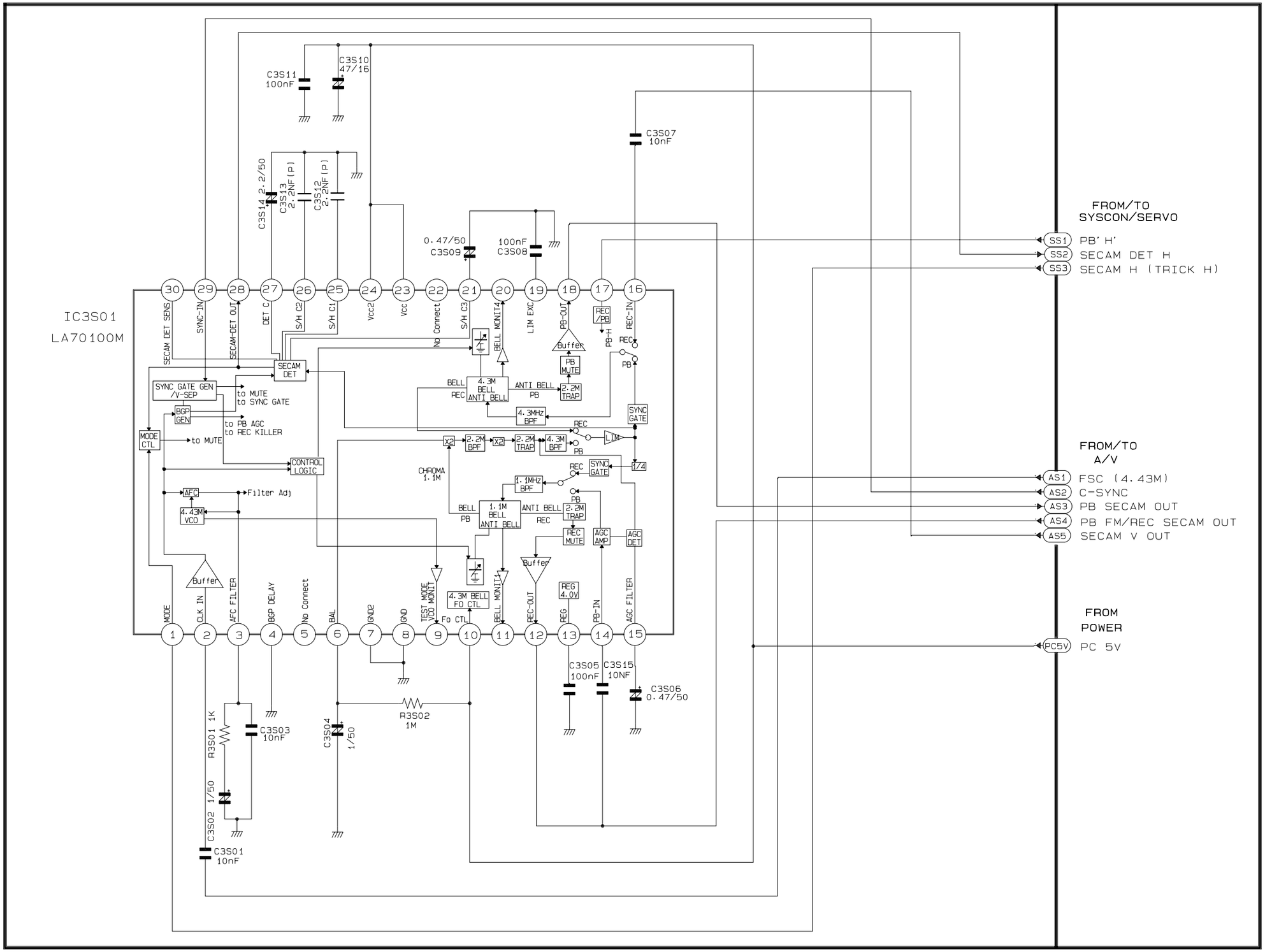
4-8 Hi-Fi (Hi-Fi model)



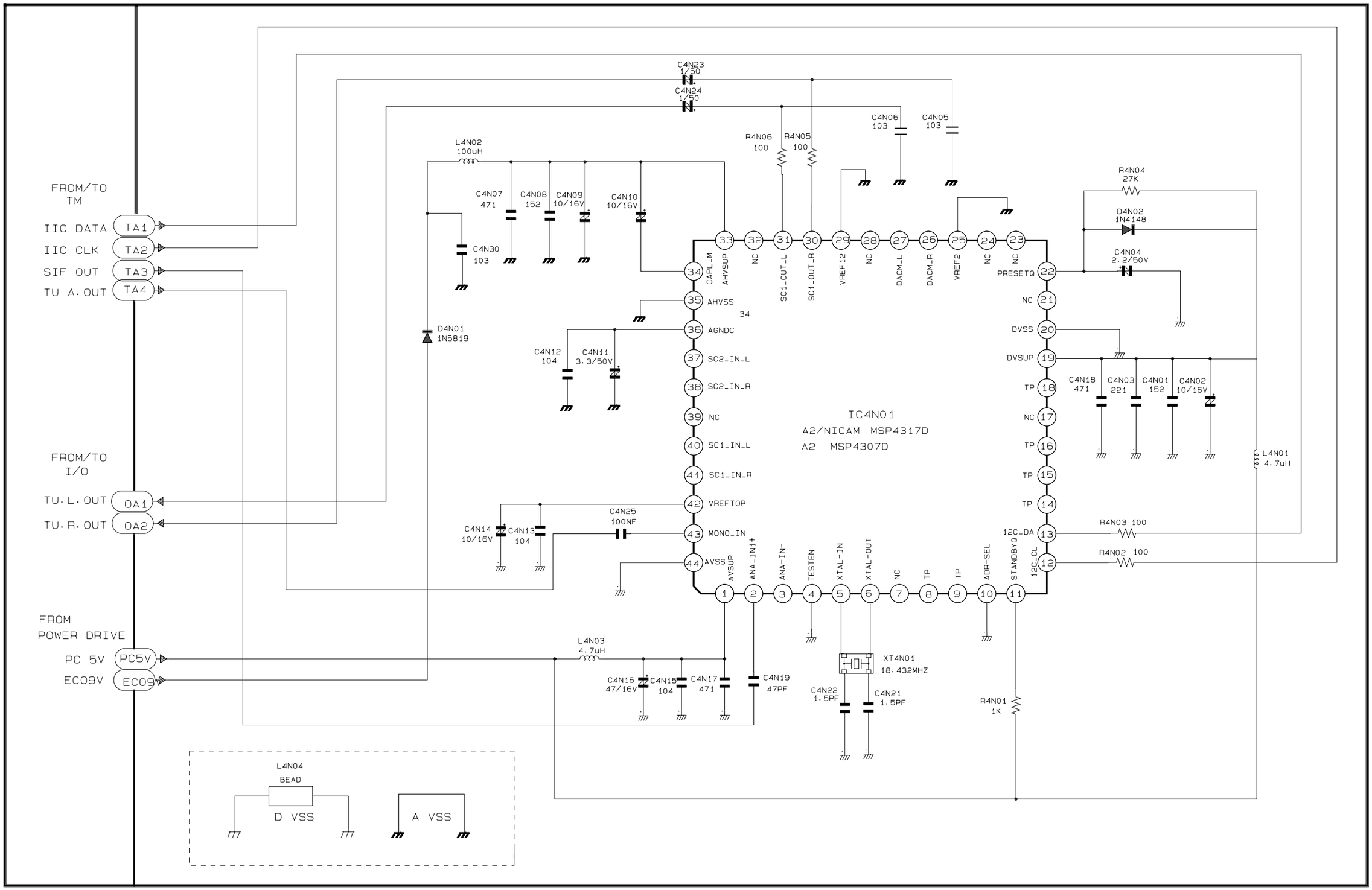
4-9 TM-BLOCK


TM401
RF IN
TV OUT
X. I. G MODEL ONLY
BB+(AL5V) 1
AUDIO IN 2
IIC DATA 3
MB+(PC5V) 4
IIC CLK 5
VIDEO IN 6
TU33V(MOD) 7
RF AGC 8
N.C 9
N.C 10
IIC CLK 11
IIC DATA 12
N.C 13
+B(PC5V) 14
Fsc(4.43) 15
TU(33V) 16
T.P 17
IF OUT 18
POSITIVE'L' (SW1) 19
L' CTL(SW2) 20
AUDIO OUT 21
SIF OUT 22
AFT 23
VIDEO OUT 24
- 25
R401 47K
R402 100
R403 100
R404 100
C401 470/10V
C408 10NF
C404 0.33/50V
C402 22NF
C403 47/16
C410 10NF
C409 220/10
D401 1N5819
L402 100UH
L403 100UH
C405 47/50
ZD401 UZP33B
C406 10NF
R406 22K HI-FI:10K
R407 8.2K HI-FI:2.2K
R408 1.2K
C407 47/16
X. I. G MODEL ONLY
TM-BLOCK
FROM POWER DRIVE
AL 5V
PC 5V
AL33V
FROM/TO SYSCON/SERVO
ST1 IIC CLK
ST2 IIC DATA
ST3 POSITIVE'L'(SW1)
ST4 L'CTL (SW2)
ST5 AFT
TO A2/NICAM
TA1 IIC DATA
TA2 IIC CLK
TA3 SIF OUT
TA4 TU A.OUT
FROM A/V
VT1 Fsc(4.43M)
TO I/O
FT4 TU A.OUT
FT3 TU V.OUT
FT1 RF A.IN
FT2 RF V.IN

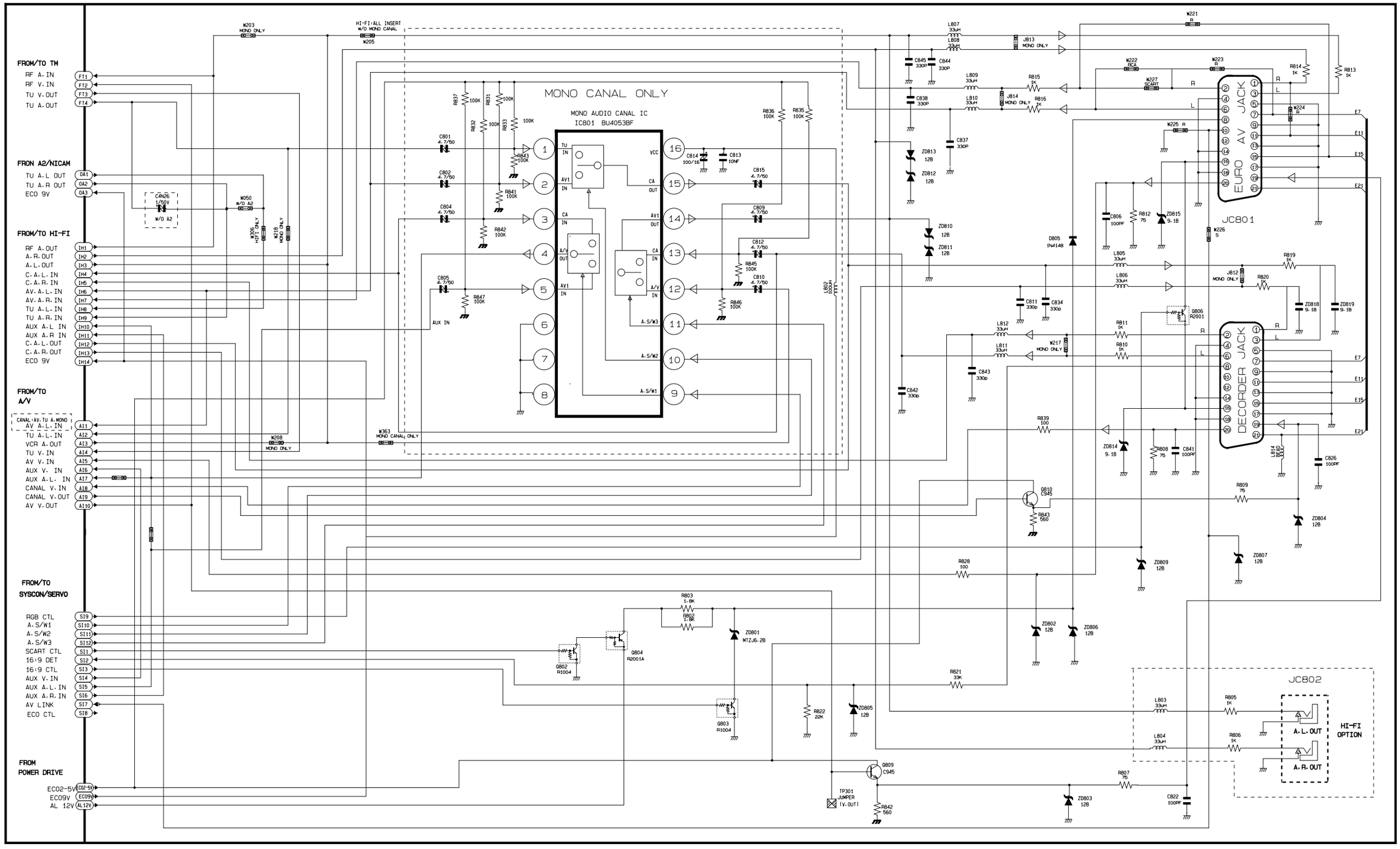

LC74776-9821 256F PDC(EC.SONY)
LC74759-9820 256F OSD(M/EAST.CIS)
LC74783-9735 128F OSD (SONY ASIA)
IC6P01
1 VSS1
2 XTALin
3 XTALout
4 CTRL1
5 SCL
6 OSNin
7 OSCout
8 SYNCjdg
9 CS
10 SCLK
11 SIN
12 VDD2
13 CPOUT
14 VCPIN
15 VSS3
30 VDD1
29 RST
28 CDLR
27 SDA
26 SEPout
25 SEPc
24 SYNin
23 VDD1
22 CVCR
21 CVin
20 VSS2
19 CVout
18 VDD3
17 NC
16 VCOR
2FSC
C6P01 10nF
IIC CLOCK
R6P01 100
PDC OPTION
E.EUROPE C6P04.05 24PF
C6P04 27pF
C6P05 27pF
L6P05 27UH
SYNC DET
OSD STB
OSD CLK
OAD DATA
R6P03 2.7K
R6P04 10K
C6P07 4.7/50
C6P06 1nF
PDC OPTION
W315 VCP OPT
C6P11 1/50
R6P05 10K
W344 OSD OPTION
R6P02 100 PDC OPTION
C6P10 1/50
C6P02 120PF
OSD OPT
R6P09 000
2.2K:OSD ONLY
Q6P02 A733
R6P08 390
L6P03 22uH
C6P08 56pF
C6P13 100nF
C6P12 47/16
R6P07 220
R6P10 220
Q6P01 KSA733
R6P06 5.6K
IIC DATA
OSD C-SYNC
OSD VIDEO IN
OSD VIDEO OUT
FROM/TO AV
OSD VIDEO IN
2FSC
OSD VIDEO OUT
A01 OSD VIDEO IN
A02 2FSC
A03 OSD VIDEO OUT
FROM POWER DRIVE
PC5V PC5V
FROM/TO SYSCON/SERVO
OSD CLK
OAD DATA
OSD STB
IIC CLK
IIC DATA
SYNC DET
OS1 OSD CLK
OS2 OAD DATA
OS3 OSD STB
OS4 IIC CLK
OS5 IIC DATA
OS6 SYNC DET


IC3S01
LA70100M
C3S11 100nF
C3S10 47/16
C3S07 10nF
C3S14 2.2/50
C3S13 2.2NF(P)
C3S12 2.2NF(P)
0.47/50 C3S09
100nF C3S08
30 SECAM DET SENS
29 SYNC-IN
28 SECAM-DET OUT
27 DET C
26 S/H C2
25 S/H C1
24 Vcc2
23 Vcc
22 No Connect
21 S/H C3
20 BELL MONIT4
19 LIM EXC
18 PB-OUT
17 REC/PB
16 REC-IN
SECAM DET
SYNC GATE GEN /V-SEP
to MUTE
to SYNC GATE
BGP GEN
to PB AGC
to REC KILLER
MODE CTL
to MUTE
CONTROL LOGIC
AFC
Filter Adj
4.43M VCO
Buffer
4.3M BELL ANTI BELL
BELL REC
ANTI BELL PB
2.2M TRAP
4.3MHz BPF
PB MUTE
Buffer
REC
PB
SYNC GATE
X2
2.2M BPF
X2
2.2M TRAP
4.3M BPF
PB
LIM
CHROMA 1.1M
1.1MHz BPF
REC
SYNC GATE
1/4
1.1M BELL ANTI BELL
BELL PB
ANTI BELL REC
2.2M TRAP
REC MUTE
AGC AMP
AGC DET
Buffer
4.3M BELL FO CTL
REG 4.0V
1 MODE
2 CLK IN
3 AFC FILTER
4 BGP DELAY
5 No Connect
6 BAL
7 GND2
8 GND
9 TEST MODE VCO MONI
10 Fo CTL
11 BELL MONIT4
12 REC-OUT
13 REG
14 PB-IN
15 AGC FILTER
R3S01 1K
C3S03 10nF
C3S02 1/50
C3S01 10nF
C3S04 1/50
R3S02 1M
C3S05 100nF
C3S15 10NF
C3S06 0.47/50
FROM/TO SYSCON/SERVO
SS1 PB' H'
SS2 SECAM DET H
SS3 SECAM H (TRICK H)
FROM/TO A/V
AS1 FSC (4.43M)
AS2 C-SYNC
AS3 PB SECAM OUT
AS4 PB FM/REC SECAM OUT
AS5 SECAM V OUT
FROM POWER
PC5V PC 5V

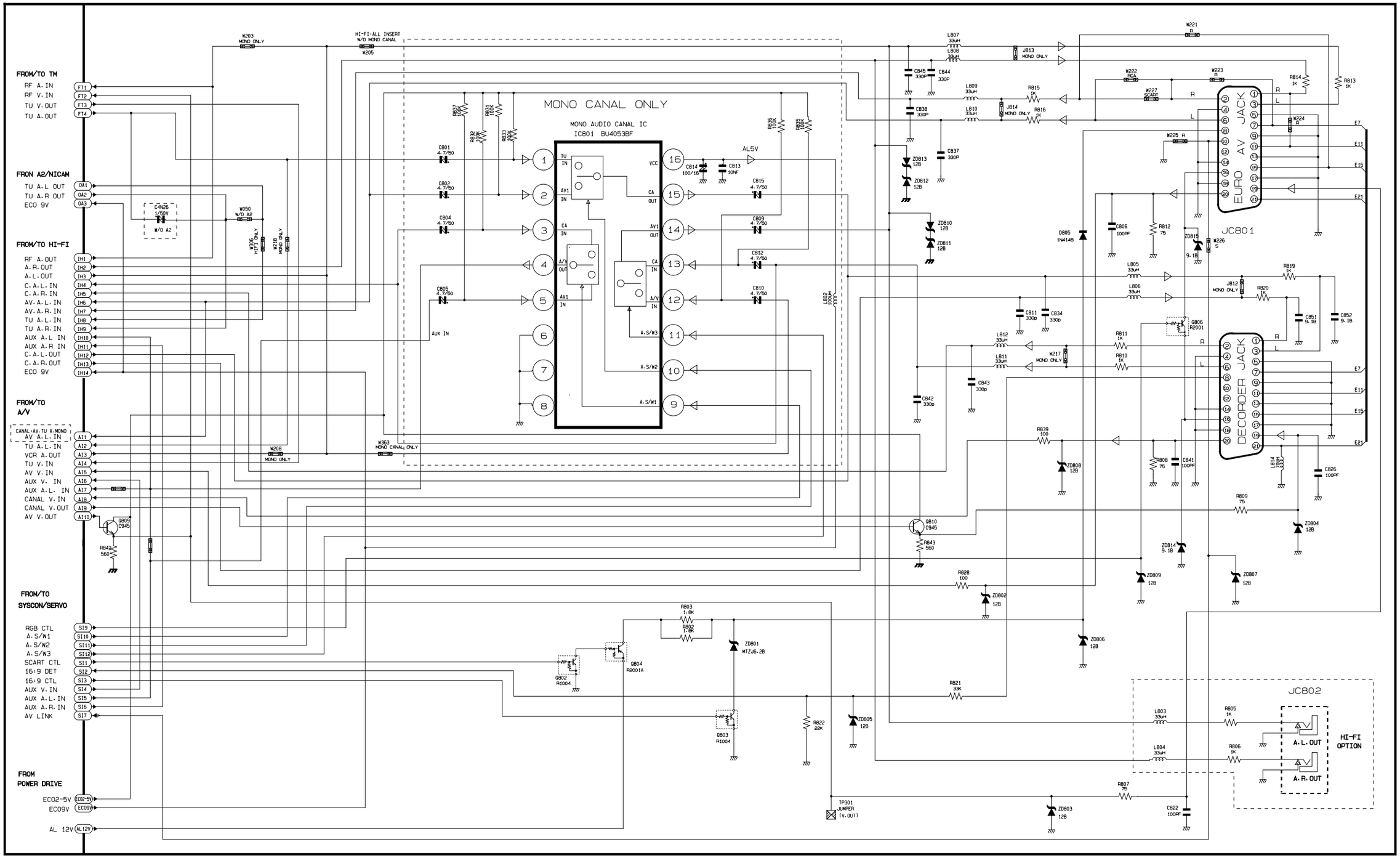
4-12 A2/NICAM (Hi-Fi model)

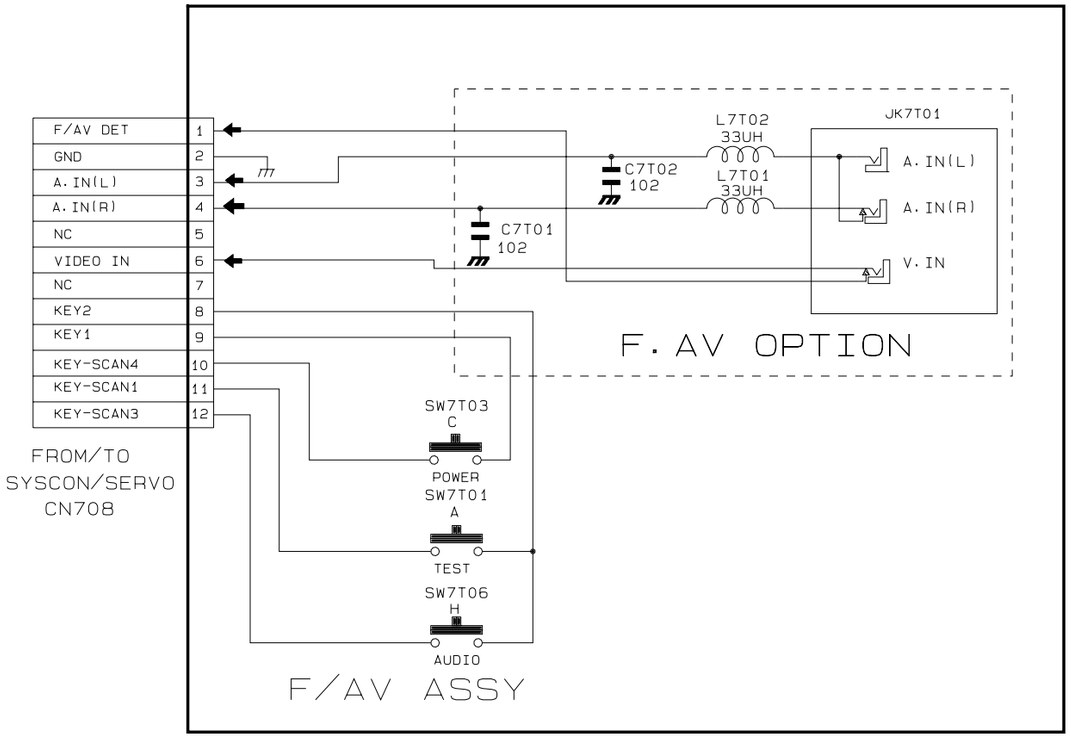


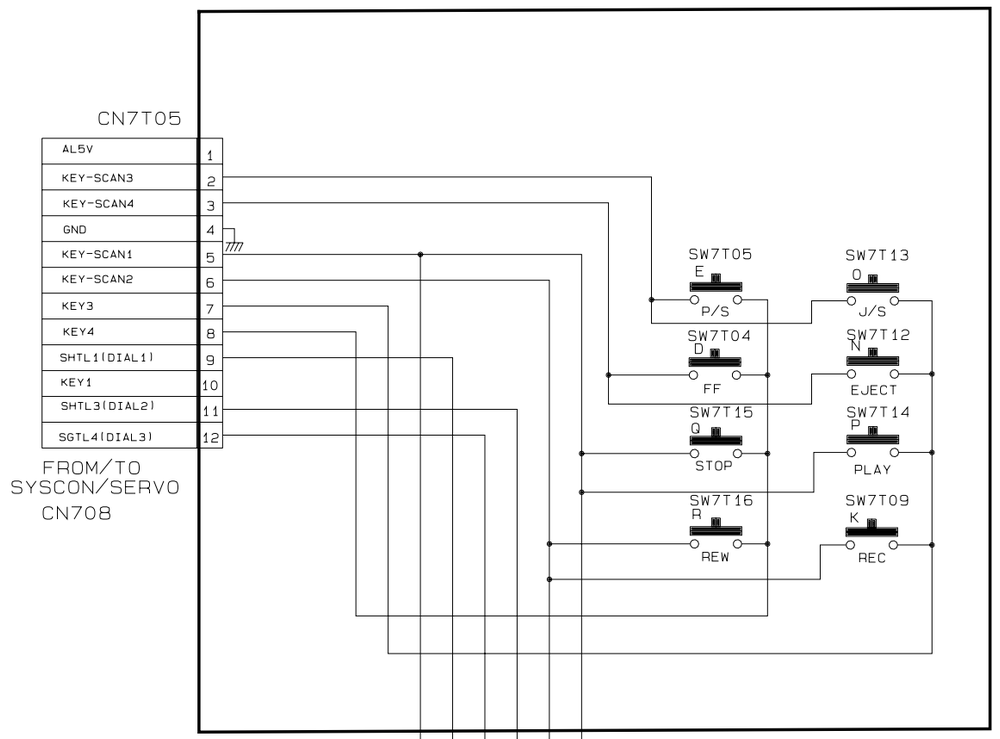
4-13 INPUT-OUTPUT (2 SCART JACK) (Main A model)

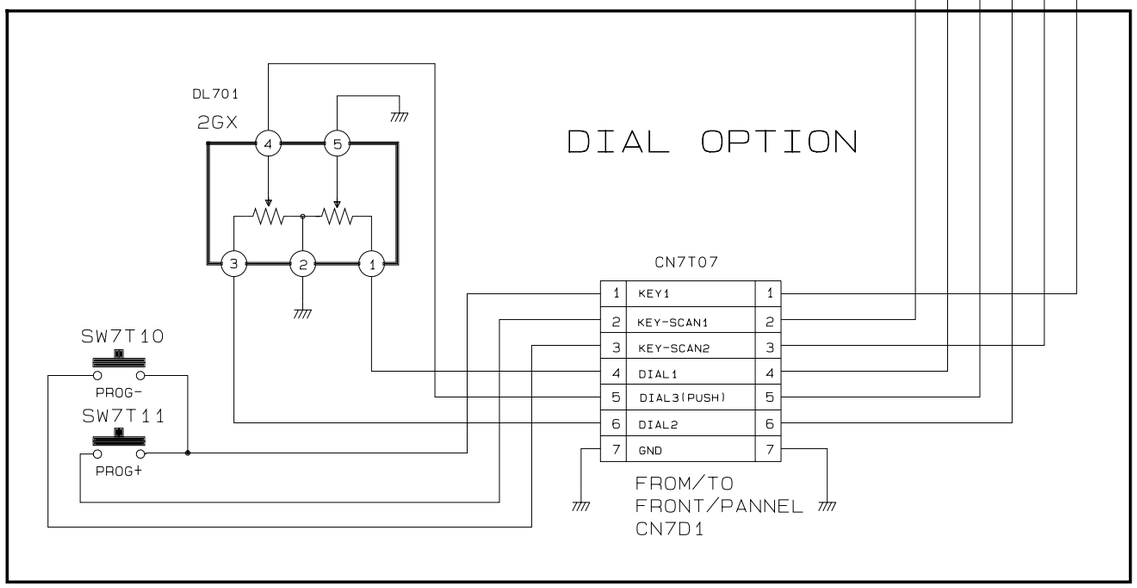


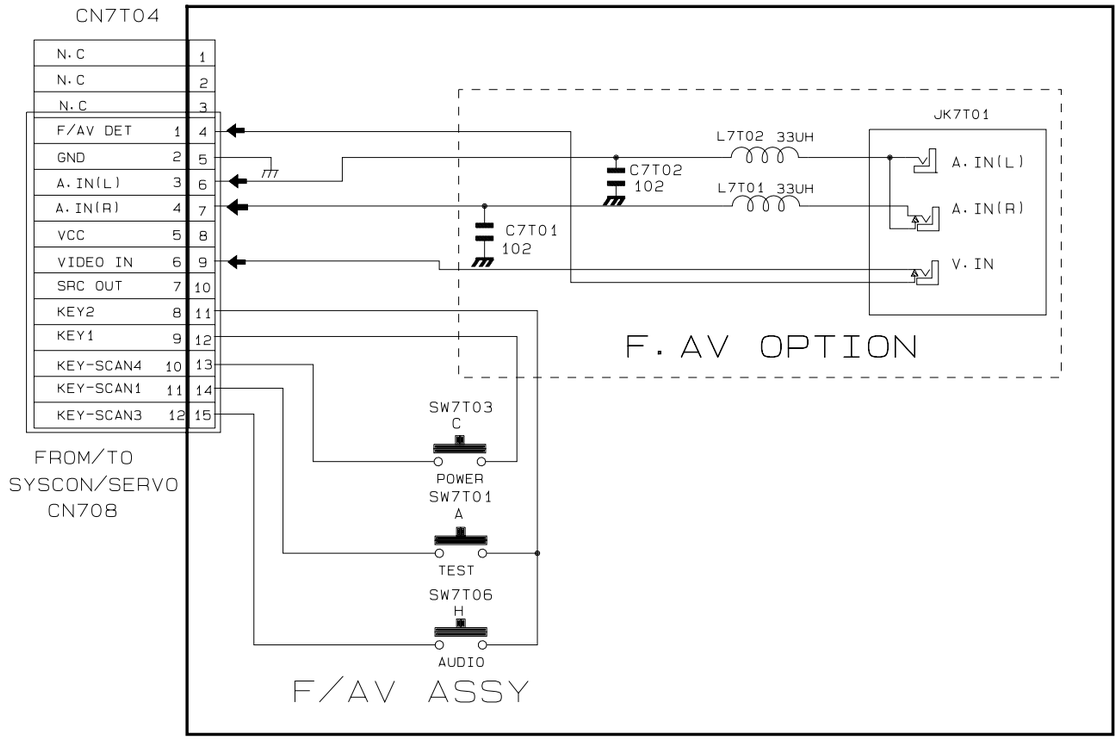
4-14 INPUT-OUTPUT (2 SCART JACK) (Main B model)

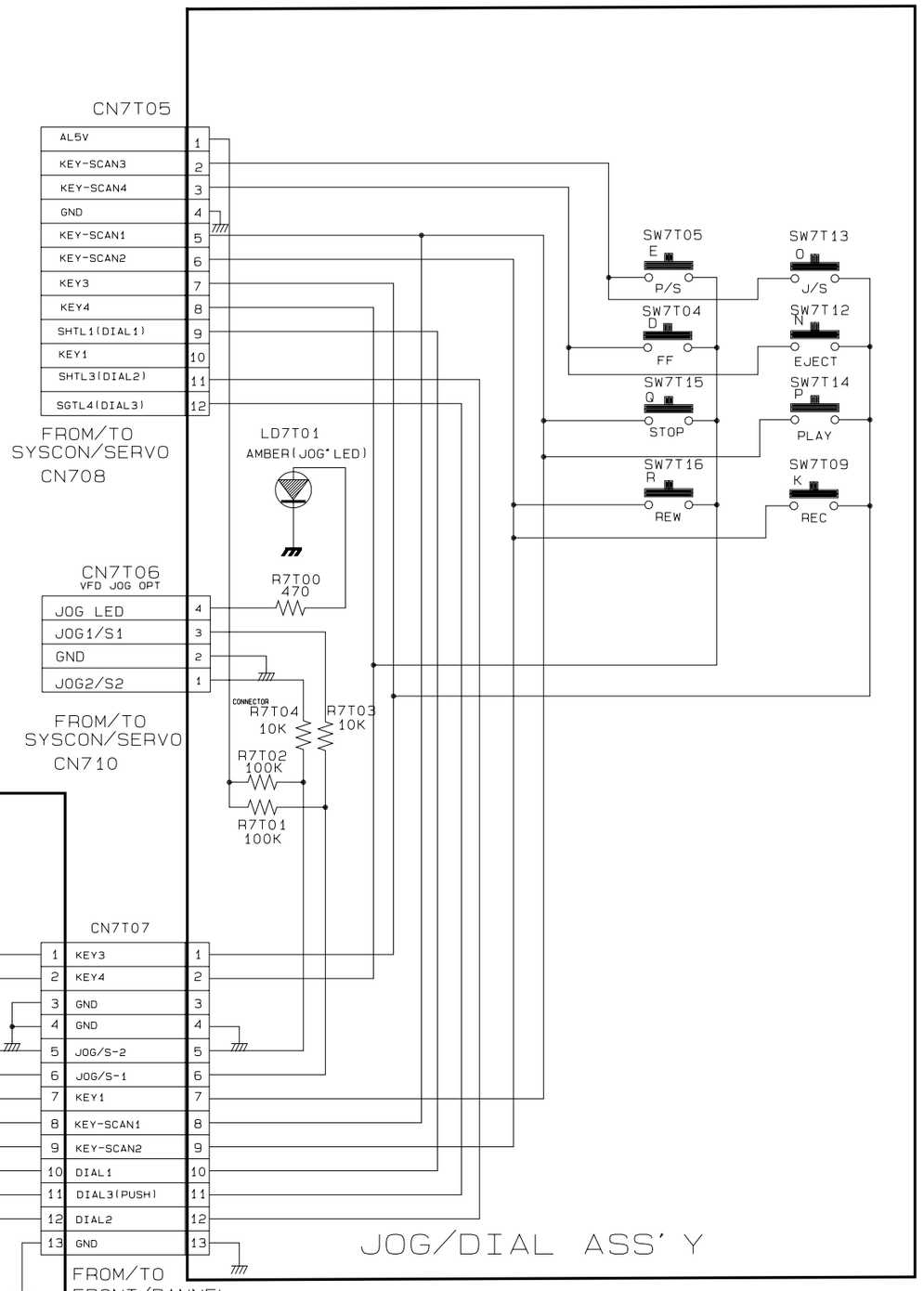


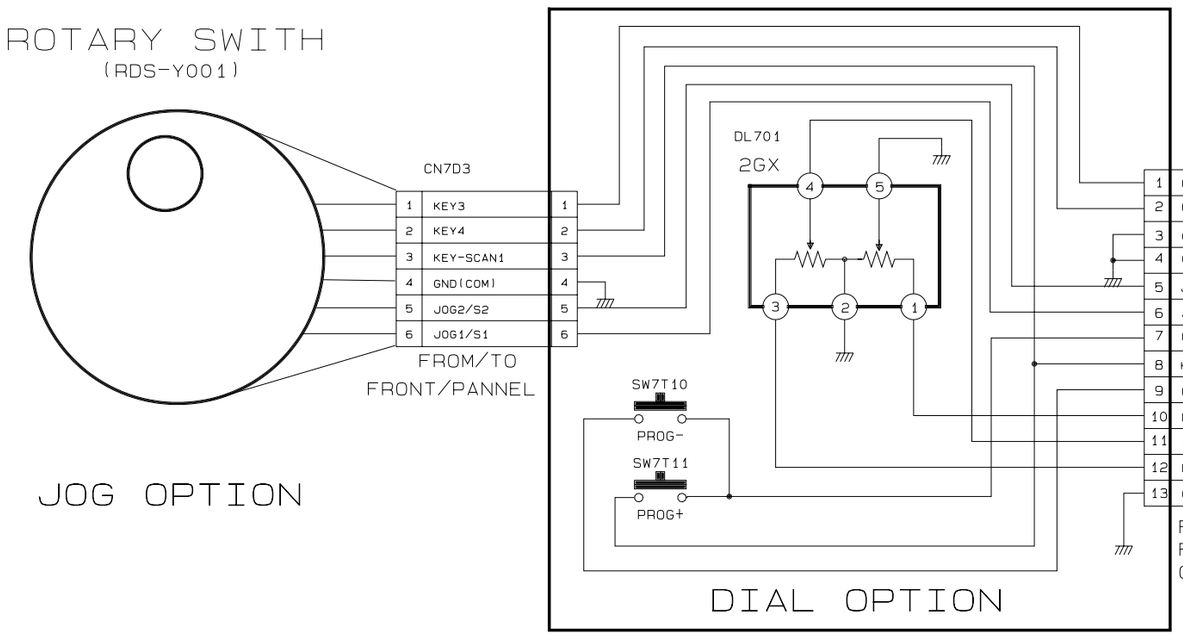

F/AV DET 1
GND 2
A.IN(L) 3
A.IN(R) 4
NC 5
VIDEO IN 6
NC 7
KEY2 8
KEY1 9
KEY-SCAN4 10
KEY-SCAN1 11
KEY-SCAN3 12
FROM/TO
SYSCON/SERVO
CN708
L7T02
33UH
L7T01
33UH
C7T02
102
C7T01
102
JK7T01
A.IN(L)
A.IN(R)
V.IN
F.AV OPTION
SW7T03
C
POWER
SW7T01
A
TEST
SW7T06
H
AUDIO
F/AV ASSY


CN7T05
AL5V 1
KEY-SCAN3 2
KEY-SCAN4 3
GND 4
KEY-SCAN1 5
KEY-SCAN2 6
KEY3 7
KEY4 8
SHTL1(DIAL1) 9
KEY1 10
SHTL3(DIAL2) 11
SGTL4(DIAL3) 12
FROM/TO
SYSCON/SERVO
CN708
SW7T05
E
P/S
SW7T13
O
J/S
SW7T04
D
FF
SW7T12
N
EJECT
SW7T15
Q
STOP
SW7T14
P
PLAY
SW7T16
R
REW
SW7T09
K
REC


DL701
2GX
4
5
3
2
1
DIAL OPTION
SW7T10
PROG-
SW7T11
PROG+
CN7T07
1 KEY1 1
2 KEY-SCAN1 2
3 KEY-SCAN2 3
4 DIAL1 4
5 DIAL3(PUSH) 5
6 DIAL2 6
7 GND 7
FROM/TO
FRONT/PANNEL
CN7D1


CN7T04
N.C 1
N.C 2
N.C 3
F/AV DET 1 4
GND 2 5
A.IN(L) 3 6
A.IN(R) 4 7
VCC 5 8
VIDEO IN 6 9
SRC OUT 7 10
KEY2 8 11
KEY1 9 12
KEY-SCAN4 10 13
KEY-SCAN1 11 14
KEY-SCAN3 12 15
FROM/TO
SYSCON/SERVO
CN708
L7T02 33UH
C7T02
102
L7T01 33UH
C7T01
102
JK7T01
A.IN(L)
A.IN(R)
V.IN
F.AV OPTION
SW7T03
C
POWER
SW7T01
A
TEST
SW7T06
H
AUDIO
F/AV ASSY


CN7T05
AL5V 1
KEY-SCAN3 2
KEY-SCAN4 3
GND 4
KEY-SCAN1 5
KEY-SCAN2 6
KEY3 7
KEY4 8
SHTL1(DIAL1) 9
KEY1 10
SHTL3(DIAL2) 11
SGTL4(DIAL3) 12
FROM/TO
SYSCON/SERVO
CN708
LD7T01
AMBER(JOG*LED)
R7T00
470
CN7T06
VFD JOG OPT
JOG LED 4
JOG1/S1 3
GND 2
JOG2/S2 1
FROM/TO
SYSCON/SERVO
CN710
CONNECTOR
R7T04
10K
R7T03
10K
R7T02
100K
R7T01
100K
SW7T05
E
P/S
SW7T13
O
J/S
SW7T04
D
FF
SW7T12
N
EJECT
SW7T15
Q
STOP
SW7T14
P
PLAY
SW7T16
R
REW
SW7T09
K
REC
JOG/DIAL ASS'Y


TO FRONT PANNEL
ROTARY SWITH
(RDS-Y001)
CN7D3
1 KEY3 1
2 KEY4 2
3 KEY-SCAN1 3
4 GND(COM) 4
5 JOG2/S2 5
6 JOG1/S1 6
FROM/TO
FRONT/PANNEL
DL701
2GX
SW7T10
PROG-
SW7T11
PROG+
DIAL OPTION
CN7T07
1 KEY3 1
2 KEY4 2
3 GND 3
4 GND 4
5 JOG/S-2 5
6 JOG/S-1 6
7 KEY1 7
8 KEY-SCAN1 8
9 KEY-SCAN2 9
10 DIAL1 10
11 DIAL3(PUSH) 11
12 DIAL2 12
13 GND 13
FROM/TO
FRONT/PANNEL
CN7D1
JOG OPTION

5. ALIGNMENT AND ADJUSTMENT

5-1 REFERENCE

1) X-Point (Tracking center) adjustment, “Head switching adjustment” and “NVRAM option setting” can be adjusted with remote control.
2) When replacing the Micom (IC601) and NVRAM (IC605 ; EEPROM) be sure to adjust the “Head switching adjustment” and “NVRAM option setting”.
3) When replacing the cylinder ass'y, be sure to adjust the “X-Point” and “Head switching adjustment”.
4) How to adjustment.
   - Press the “TEST” button on Main PCB/Function PCB to set the adjustment mode.
   - If the corresponding adjustment button is pressed, the adjustment is performed automatically.
   - If the adjustment is completed, be sure to turn the power off.

5-1-1 Location of adjustment button of remote control

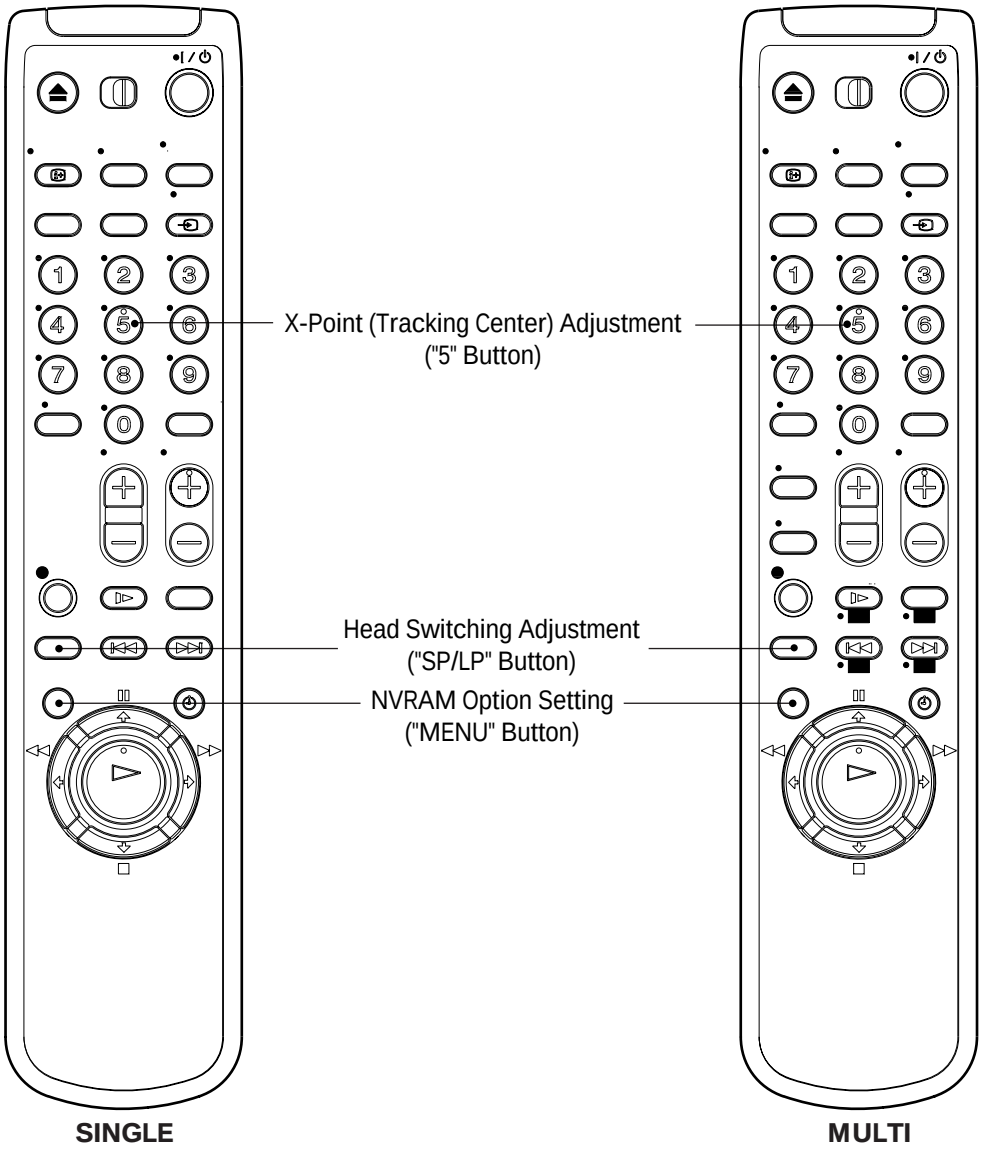


Fig. 5-1

5-1-2 Test point location for adjustment mode setting (Mono model)

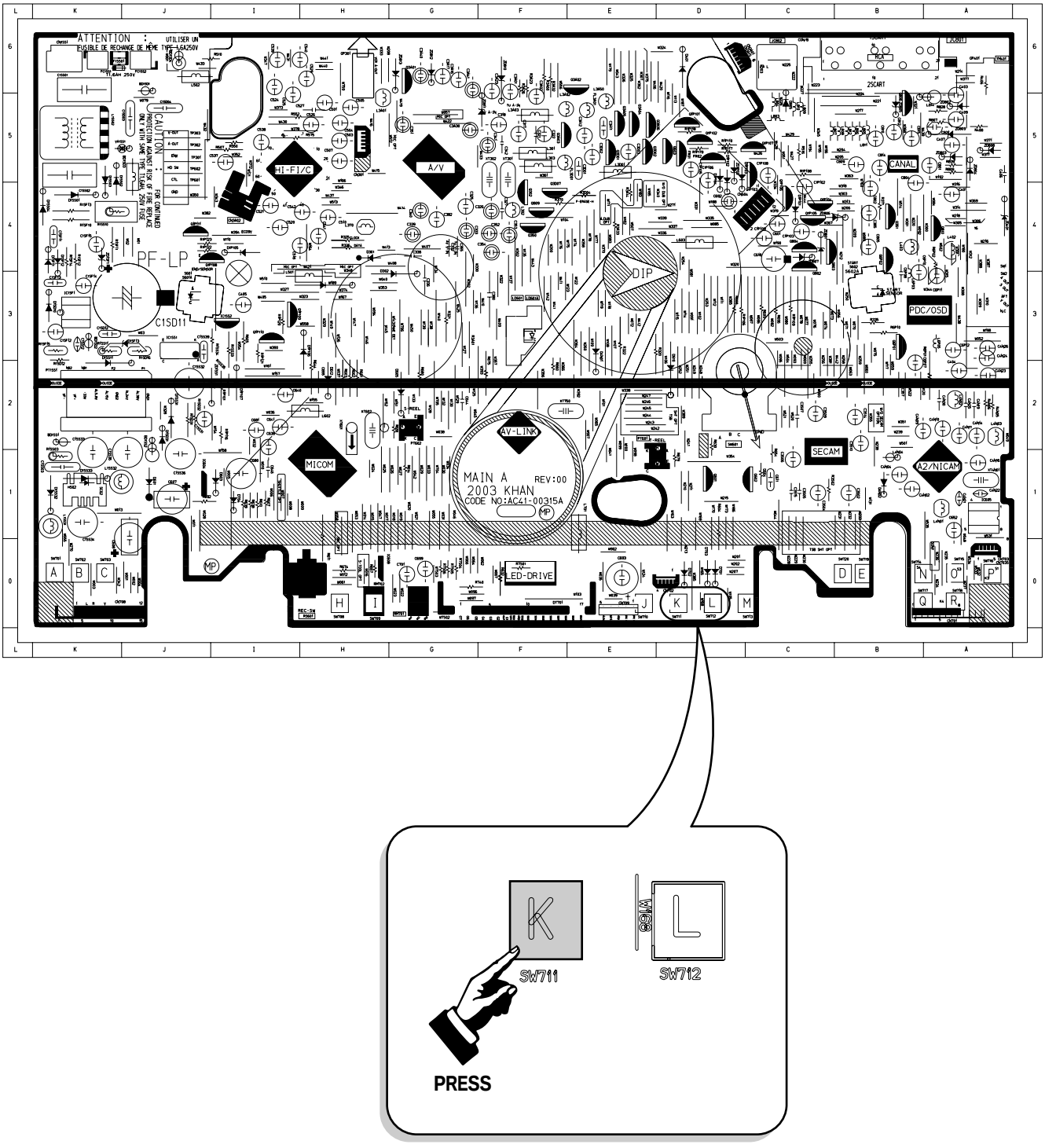


Fig. 5-2 Main PCB (Top View)

- Hi-Fi model: SE630/SE730/SE737/SE830/SX730/SX737
  Mono model: SE230/SE430

5-1-3 SW7T01 (TEST) location for adjustment mode setting (Hi-Fi model)

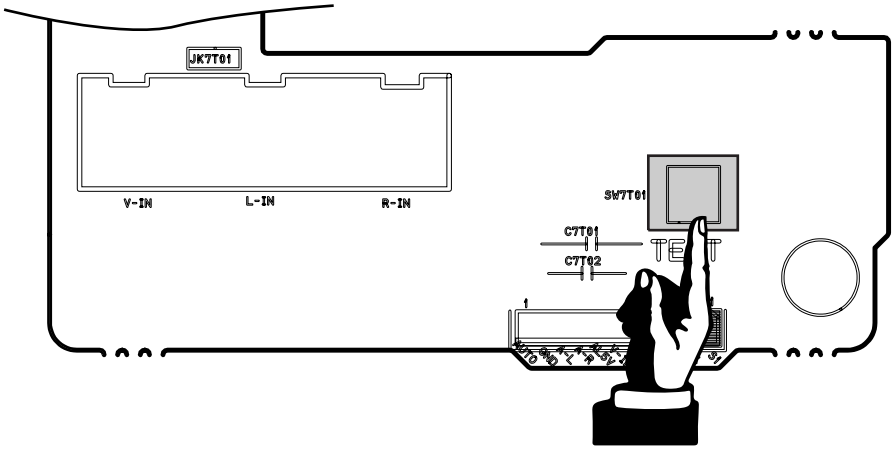


Fig. 5-3 Function PCB (Top View)

• Hi-Fi model: SE630/SE730/SE737/SE830/SX730/SX737
Mono model: SE230/SE430

5-2 MECHANICAL ADJUSTMENT

Note : Refer to the Mechanical Manual for the adjustment and confirmation of ass'y deck.

5-2-1 The number and position of test point

Test point :	TP602 (H'D S/W -Trigger)
	TP301 (Envelope)
	TP302 (Audio output)

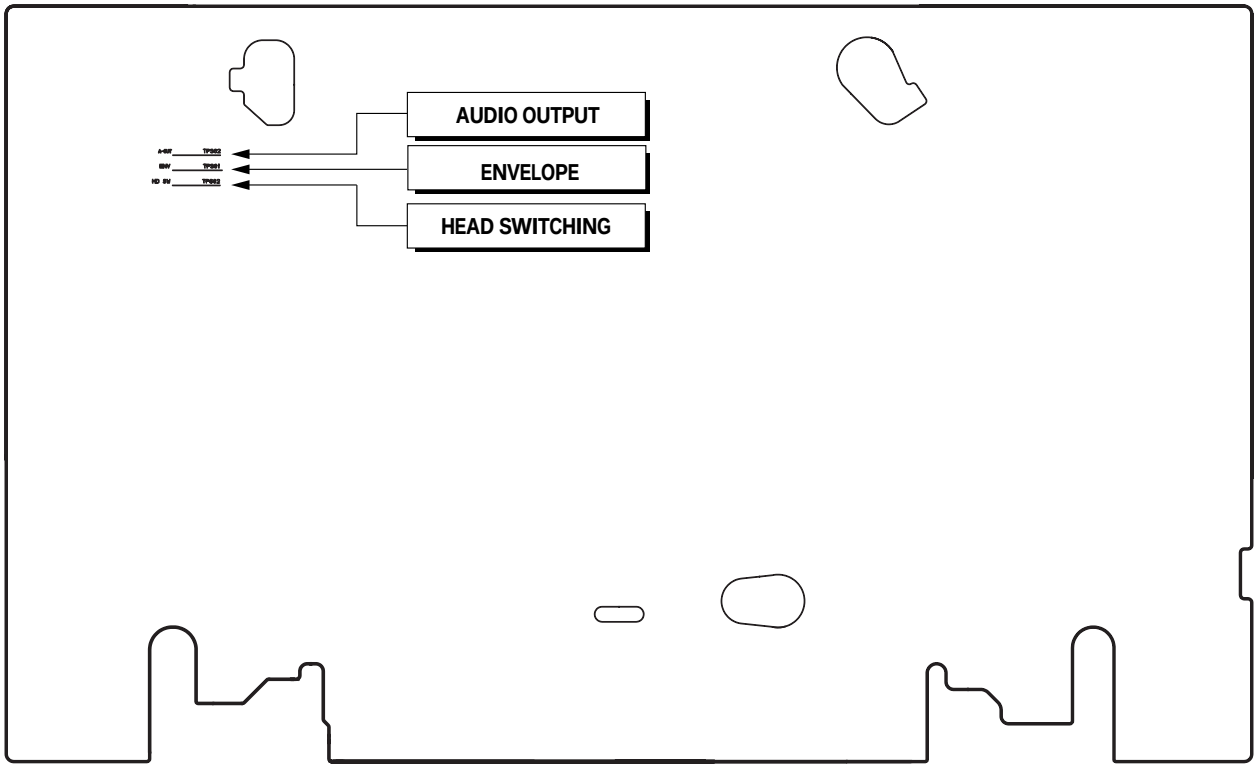


Fig. 5-4 Location of Test point (Main PCB-Top View)

5-2-2 ACE Head Position (X-Point) Adjustment

(See the 2-2-1(d) ACE Head Position (X-Point) Adjustment on page 2-2 of the Mechanical Manual)

1) Playback the alignment tape (Color bar).
2) Press the "TEST" button on Main PCB/Function PCB to set the adjustment mode.
   (See Fig. 5-2 and 5-3)
3) Press the "5" button of remote control then adjustment is operated automatically. (See Fig. 5-1)
4) Connect the CH-1 probe to TP301 (Envelope) the CH-2 probe to TP602 (H'D switching pulse) and then trigger to CH-1.
5) Insert the (-) driver into the X-Point adjustment hole and adjust it so that envelope waveform is maximum.
6) Turn the Power off.

5-3 HEAD SWITCHING POINT ADJUSTMENT

1) Playback the alignment tape.
2) Press the “TEST” button on Main PCB/Function PCB to set the adjustment mode. (See Fig. 5-2 and 5-3)
3) Press the “SP/LP” button of remote control then adjustment is operated automatically. (See Fig. 5-1)
4) Turn the Power off.

5-4 NVRAM OPTION SETTING

1) NVRAM Option is adjusted at production line basically.
2) In case Micom (IC601) and NVRAM (IC605 ; EEPROM) is replaced, be sure to set the corresponding option number of the reqaired model. (If the option is not set, the unit is not operated.)

1) Press the “TEST” button on Main PCB/Function PCB to set the adjustment mode. (See Fig. 5-2 and 5-3)
2) Press the “MENU” button on the remote control about 5 seconds then option setting display is appeared. (See Fig. 5-5 and 5-6)
3) Select the option number (See Table 5-1) of corresponding model with “FF/REW/STOP/PAUSE” button on the remote control.
4) If selecting the option number is completed, press the “OK (PLAY)” button of remote control. (If “OK (PLAY)” button is pressed, the selected number is changes reversed color. ; See Fig. 5-5)
5) Press the “MENU” button of remote control again to store the option number. (“PLEASE WAIT” is displayed for a second as shown Fig. 5-6 and this setting is completed.)
6) Turn the Power off.

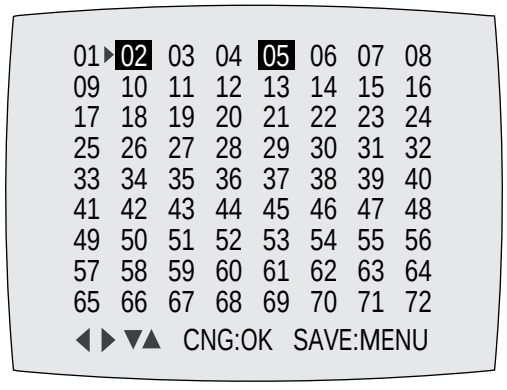


Fig. 5-5

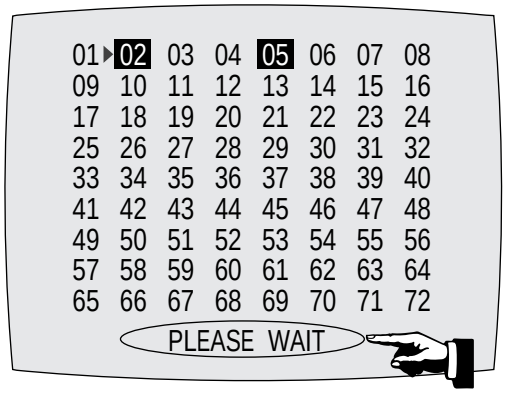


Fig. 5-6

<Table 5-1>

MODELS	OPTION NUMBER
SLV-SE230D	2, 4, 5, 11, 13, 14, 30, 34, 35, 38, 40, 42, 45, 47, 49, 60, 61, 63, 69, 72
SLV-SE230I	3, 4, 5, 10, 11, 13, 14, 25, 26, 30, 33, 34, 35, 38, 40, 43, 45, 47, 49, 60, 61, 63, 69, 72
SLV-SE230G	3, 4, 5, 10, 11, 13, 14, 27, 30, 33, 34, 35, 38, 40, 41, 45, 47, 49, 60, 61, 63, 69, 72
SLV-SE230B	2, 4, 5, 11, 13, 14, 20, 21, 26, 30, 33, 34, 35, 36, 38, 40, 45, 47, 49, 60, 61, 63, 69, 72
SLV-SE430K	9, 10, 11, 13, 14, 20, 30, 36, 38, 42, 45, 47, 49, 54, 60, 61, 63, 69, 72
SLV-SE630D	6, 7, 9, 10, 11, 12, 13, 14, 30, 34, 35, 38, 42, 45, 47, 49, 51, 60, 61, 63, 69, 72
SLV-SE630E	6, 7, 8, 9, 10, 11, 12, 13, 14, 30, 34, 35, 38, 42, 45, 47, 49, 51, 60, 61, 63, 69, 72
SLV-SE630B	6, 7, 8, 9, 10, 11, 12, 13, 14, 20, 21, 26, 30, 33, 34, 35, 36, 38 45, 47, 49, 51, 60, 61, 63 69, 72
SLV-SE630N	6, 7, 8, 9, 10, 11, 12, 13, 14, 20, 30, 36, 38, 42, 45, 47, 49, 51, 54, 60, 61, 63, 69, 72
SLV-SE730D/SX730D	2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 19, 30, 34, 35, 40, 42, 45, 47, 51, 60, 61, 63, 66, 69, 72
SLV-SE730E/SX730E	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 30, 34, 35, 40, 42, 45, 47, 51, 60, 61, 63, 66, 69, 72
SLV-SE730G	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 27, 30, 33, 34, 35, 40, 41, 45, 47, 51, 60, 61, 63, 66, 69, 72
SLV-SE730I	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 25, 26, 30, 33, 34, 35, 40, 43, 45, 47, 51, 60, 61, 63, 66, 69, 72
SLV-SE730B	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 20, 21, 26, 30, 33, 34, 35, 36, 40, 45, 47, 51, 60, 61, 63, 66, 69, 72
SLV-SX737D	2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 19, 30, 32, 34, 35, 40, 42, 45, 47, 51, 60, 61, 63, 66, 69, 72
SLV-SE737E	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 30, 32, 34, 35, 40, 42, 45, 47, 51, 60, 61, 63, 66, 69, 72
SLV-SE730N/SX730N	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 20, 30, 36, 42, 45, 47, 51, 54, 60, 61, 63, 66, 69, 72
SLV-SE830D	2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 19, 23, 29, 30, 32, 34, 35, 40, 42, 45, 47, 48, 49, 50, 60, 61, 63, 64, 66, 69, 72
SLV-SE830E	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 23, 29, 30, 32, 34, 35, 40, 42, 45, 47, 48, 49, 50, 60, 61, 63, 64, 66, 69, 72
SLV-SE830G	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 23, 27, 29, 30, 32, 33, 34, 35, 40, 41, 45, 47, 48, 49, 50, 60, 61, 63, 64, 66, 69, 72
SLV-SE830B	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 20, 21, 23, 26, 29, 30, 32, 33, 34, 35, 36, 40, 45, 47, 48, 49, 50, 60, 61, 63, 64, 66, 69, 72
SLV-SE830N	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 20, 23, 29, 30, 32, 36, 42, 45, 47, 48, 49, 50, 54, 60, 61, 63, 64, 66, 69, 72

6. REPAIR PARTS LIST

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6-1-3 Mechanical Parts (Top Side) - - - - 6-4

6-1-4 Mechanical Parts (Bottom Side) - - - - 6-5

6-2 Electrical Parts List - - - - 6-6

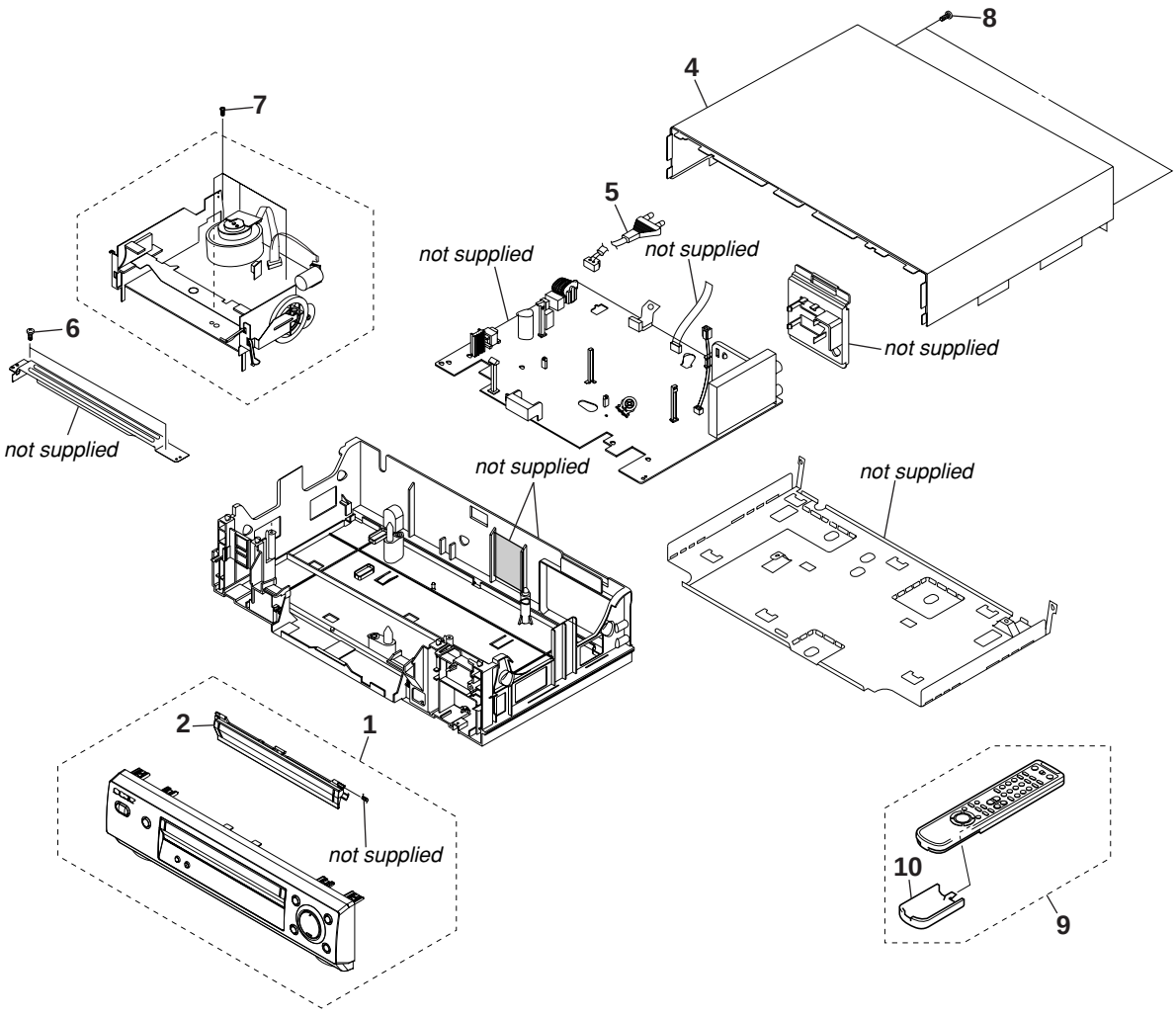
6-1 EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  AUS : Australia model
  HK : Hong Kong model
  ME : Middle East model

The components identified by mark ⚠or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- Hi-Fi model: SE630/SE730/SE737/SE830/SX730/SX737
  Mono model: SE230/SE430

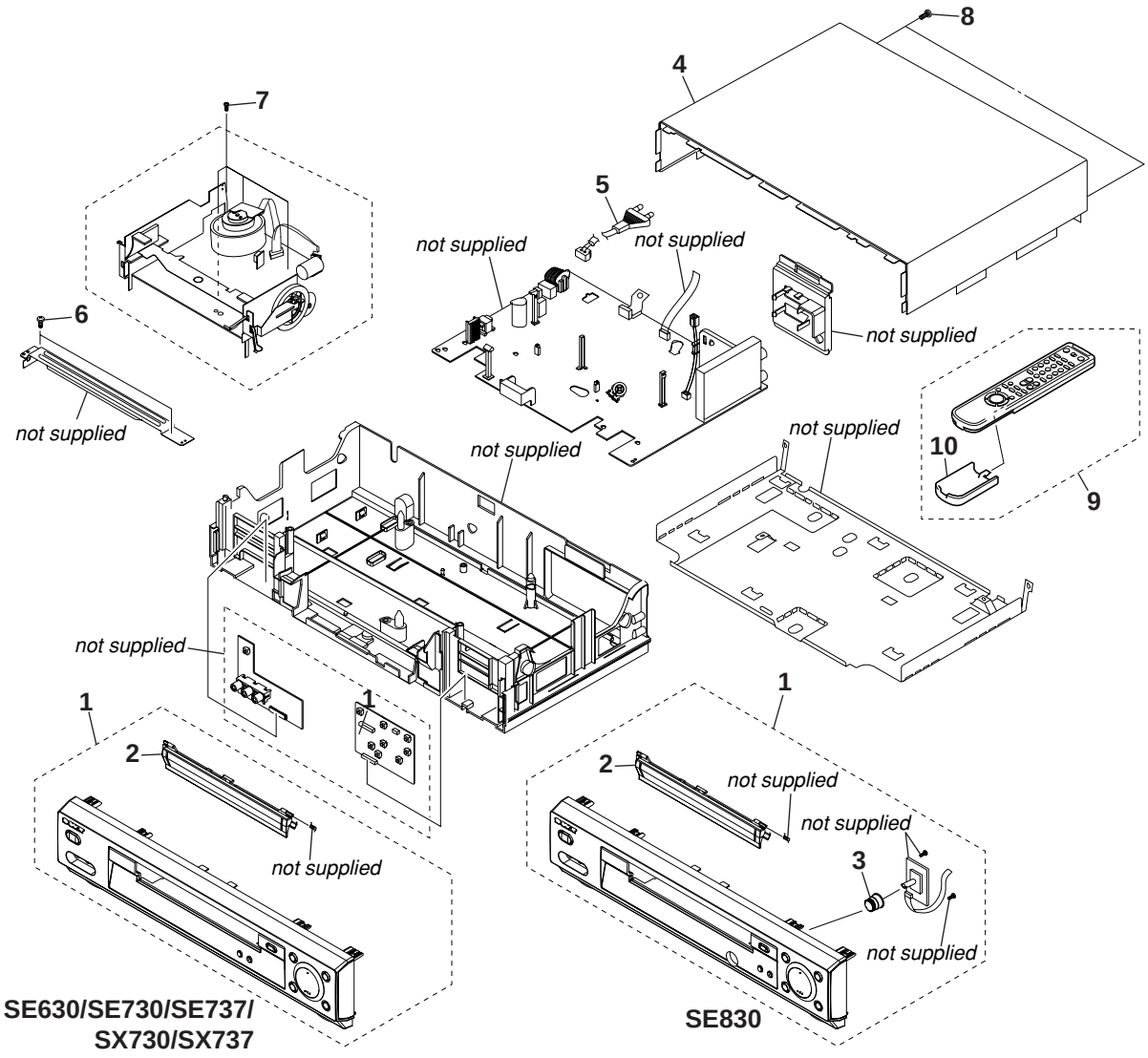
6-1-1 Instrument Assembly (Mono Models)



Ref. No.	Part No.	Description	Remarks
1	3-083-530-11	ASSY PANEL FRONT (SE230: D)	
1	3-083-531-01	ASSY PANEL FRONT (SE230: G, I)	
1	3-083-532-01	ASSY PANEL FRONT (SE230: B)	
1	3-083-533-11	ASSY PANEL FRONT (SE430)	
2	3-083-527-01	DOOR CASSETTE 360S	
4	3-075-020-01	CASE (360), UPPER	
⚠5	1-823-023-11	POWER CORD KKP419C (SE230: B, D/SE430)	
⚠5	1-823-025-11	POWER CORD Y352 (SE230: G, I)	
6	3-075-256-01	SCREW TAP 3X12	

Ref. No.	Part No.	Description	Remarks
7	3-075-262-01	SCREW BH 4X12	
8	3-083-523-01	SCREW TAP 3X10	
9	1-477-269-11	COMMANDER, STANDARD (RMT-V405)	(SE230: D, G, I/SE430)
9	1-477-270-11	COMMANDER, STANDARD (RMT-V405A)	(SE230: B)
10	3-075-088-01	COVER (S) REMOTE CONTROL BATTERY	(for RMT-V405/V405A)
11	3-075-258-01	SCREW TAP 4X16	

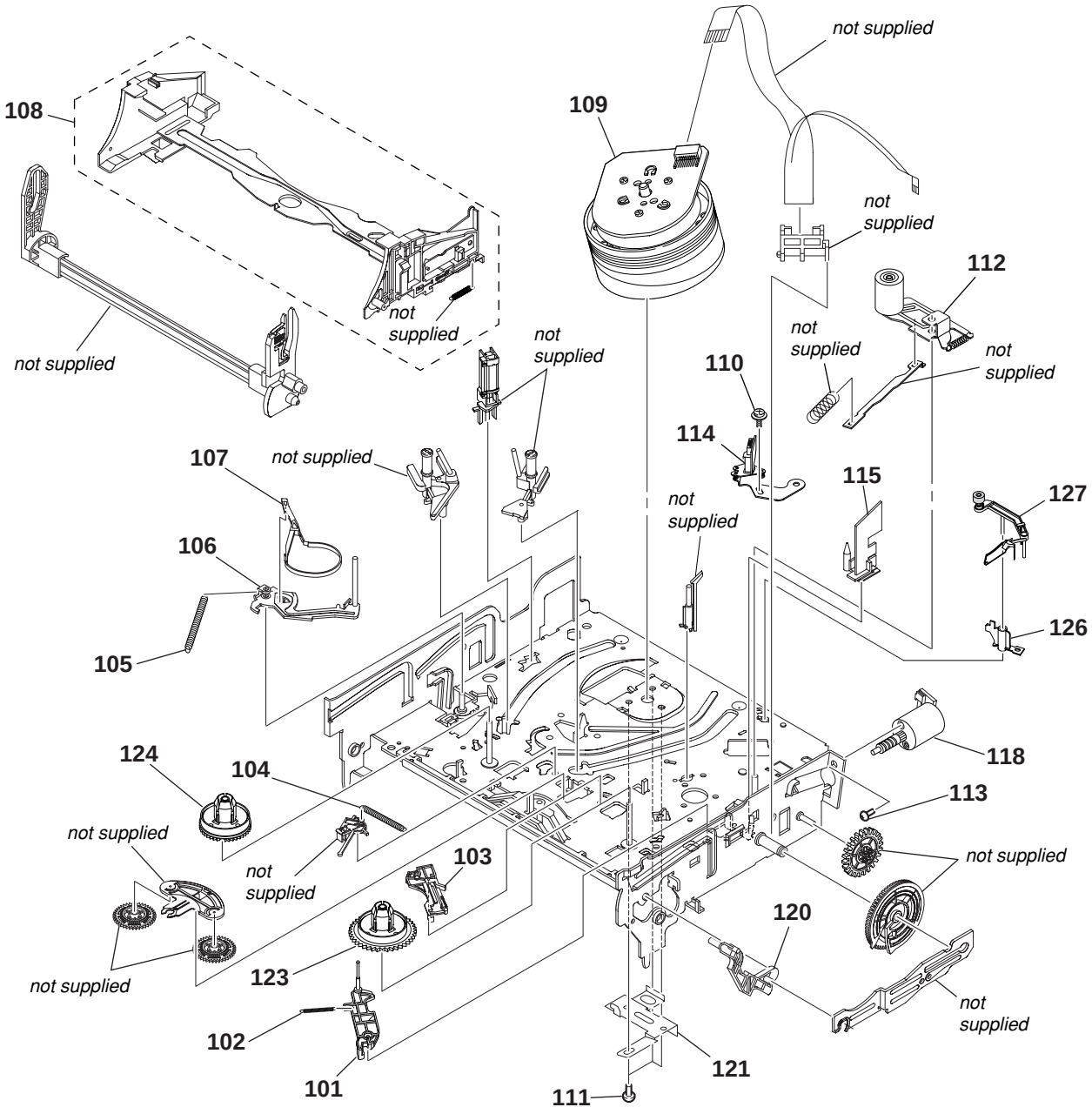
6-1-2 Instrument Assembly (Hi-Fi Models)



Ref. No.	Part No.	Description	Remarks
1	3-083-528-01	ASSY PANEL FRONT (SE630: D, E, N)	
1	3-083-529-01	ASSY PANEL FRONT (SE630: B)	
1	3-083-870-01	ASSY PANEL FRONT (SE830: G)	
1	3-083-871-01	ASSY PANEL FRONT (SE830: D, E, N)	
1	3-083-872-01	ASSY PANEL FRONT (SE830: B)	
1	3-083-873-01	ASSY PANEL FRONT (SE737)	
1	3-083-874-01	ASSY PANEL FRONT (SX737)	
1	3-083-875-01	ASSY PANEL FRONT (SE730: G, I)	
1	3-083-876-01	ASSY PANEL FRONT (SE730: D, E, N)	
1	3-083-877-01	ASSY PANEL FRONT (SE730: B)	
1	3-083-878-01	ASSY PANEL FRONT (SX730)	
2	3-083-526-01	DOOR CASSETTE 430S (SE630/SE730/SE737/SE830)	
2	3-083-879-01	DOOR CASSETTE 430B (SX730/SX737)	
3	1-786-352-11	SW-DIAL TIMER (SE830)	
4	3-075-019-01	CASE (430), UPPER (SE630/SE730/SE737/SE830/SX730: D, E)	
4	3-075-019-11	CASE (430), UPPER (SX730: N/SX737)	
⚠5	1-823-023-11	POWER CORD KKP419C (SE630/SE730: B, D, E, N/SE737/SE830: B, D, E, N/SX730/SX737)	

Ref. No.	Part No.	Description	Remarks
⚠5	1-823-025-11	POWER CORD Y352 (SE730: G, I/SE830: G)	
6	3-075-256-01	SCREW TAP 3X12	
7	3-075-262-01	SCREW BH 4X12	
8	3-083-523-01	SCREW TAP 3X10	
9	1-477-271-11	COMMANDER, STANDARD (RMT-V406) (SE630: E, N/SE730: E, G, I, N)	
9	1-477-272-11	COMMANDER, STANDARD (RMT-V406A) (SE630: B, D/SE730: B, D)	
9	1-477-273-11	COMMANDER, STANDARD (RMT-V407A) (SE737/SE830: D, E, G, N)	
9	1-477-274-11	COMMANDER, STANDARD (RMT-V407B) (SE830: B)	
9	1-477-275-11	COMMANDER, STANDARD (RMT-V407C) (SX737)	
9	1-477-276-11	COMMANDER, STANDARD (RMT-V406B) (SX730)	
10	3-075-088-01	COVER (S) REMOTE CONTROL BATTERY (for RMT-V406/V406A/V407A/V407B) (SE630/SE730/SE737/SE830)	
10	3-075-089-01	COVER (B) REMOTE CONTROL BATTERY (for RMT-V406B/V407C) (SX730/SX737)	
11	3-075-258-01	SCREW TAP 4X16	

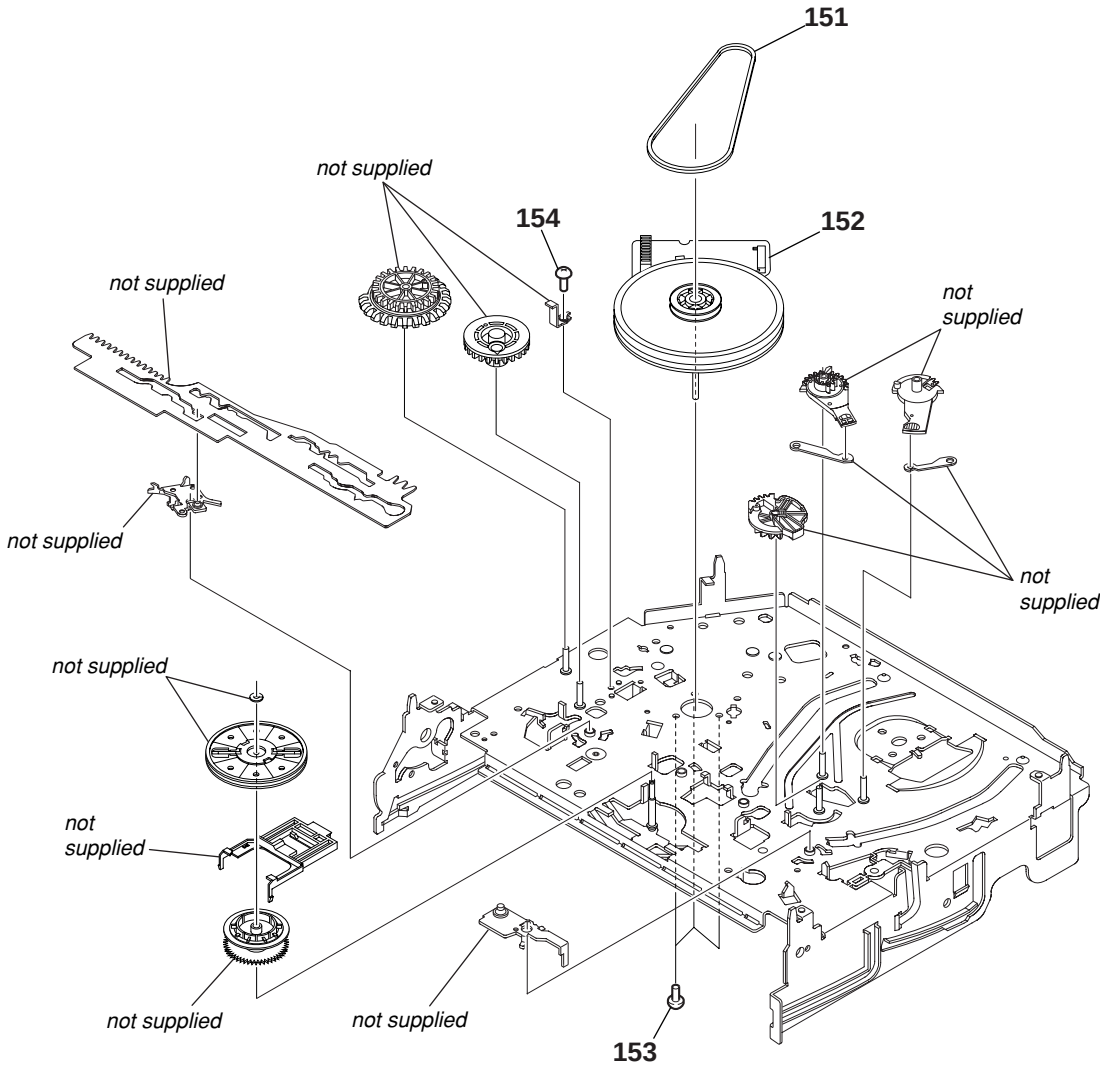
6-1-3 Mechanical Parts (Top Side)



Ref. No.	Part No.	Description	Remarks
101	3-067-779-01	LEVER-#9 GUIDE	
102	3-067-780-01	SPRING-#9 GUIDE	
103	3-067-785-01	LEVER-T. BRAKE	
104	3-067-786-01	SPRING-BRAKE	
105	3-067-782-01	SPRING-TENSION LEVER	
106	3-067-781-01	LEVER-TENSION	
107	3-067-783-01	BAND-BREAK	
108	3-067-788-01	HOLDER-FL CASS.	
109	1-796-704-11	ASSY CLYNDER 6HD (SECAM)	(SE630: B/SE730: B/SE830: B)
109	1-796-705-11	ASSY CLYNDER 6HD	(SE630: D, E, N/SE730: D, E, G, I, N/SE737/ SE830: D, E, G, N/SX730/SX737)
109	1-796-706-11	ASSY CLYNDER 2HD (SE230: B, D)	
109	1-796-707-11	ASSY CLYNDER 2HD (LP) (SE230: G, I)	
109	1-796-708-11	ASSY CLYNDER 4HD (SE430)	
110	3-075-253-01	SCREW ASSY MAC 2.6X5	

Ref. No.	Part No.	Description	Remarks
111	3-075-254-01	SCREW ASSY MAC 3X6	
112	3-067-784-01	LEVER-UNIT PINCH	
113	3-075-257-01	SCREW TAP 2.6X5	
114	3-709-671-01	ASSY HEAD ACE	
115	3-067-789-01	GUIDE-CASS. DOOR	
118	1-796-434-11	LOADING ASSY, MOTOR	
120	3-067-787-01	LEVER-FL DOOR	(SE630/SE730/SE737/SE830/SX730/SX737)
120	3-075-704-01	LEVER-FL DOOR (SE230/SE430)	
121	3-067-796-01	PLATE-GROUND DECK	
123	3-075-046-01	DISK T REEL	
124	3-075-047-01	DISK S REEL	
126	3-075-022-01	AUTO HEAD CLEANER (G681)	(SE630/SE730/SE737/SE830/SX730/SX737)
127	3-075-021-01	AUTO HEAD CLEANER (G680)	(SE630/SE730/SE737/SE830/SX730/SX737)

6-1-4 Mechanical Parts (Bottom Side)



Ref. No.	Part No.	Description	Remarks
151	3-067-790-01	BELT-PULLEY	
152	1-796-432-11	MOTOR CAPSTAN	

Ref. No.	Part No.	Description	Remarks
153	3-075-259-01	SCREW CAP 2.6X6	
154	3-075-260-01	SCREW MAC 3X3	

6-2 ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- Not all of the parts are listed.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...
- CAPACITORS:
  uF: μF
- COILS
  uH: μH
- Main A model: SE230/SE430/SE630
  Main B model: SE730/SE737/SE830/SX730/SX737
  Hi-Fi model: SE630/SE730/SE737/SE830/SX730/SX737
  Mono model: SE230/SE430

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remarks
		FUNCTION BOARD (Hi-Fi model)	
		**********	
		< JACK >	
JK7T01	1-815-698-11	JACK PIN 3P (LINE-2) (SE830)	
		< DIODE >	
LD7T01	1-805-289-11	LED (JOG) (SE830)	
		< SWITCH >	
SW7T01	1-786-353-11	TACT SW (TAPPING 5mm) (TEST)	
SW7T03	1-786-353-11	TACT SW (TAPPING 5mm) (POWER)	
SW7T04	1-786-353-11	TACT SW (TAPPING 5mm) (FF)	
SW7T05	1-786-353-11	TACT SW (TAPPING 5mm) (PAUSE)	
SW7T06	1-786-353-11	TACT SW (TAPPING 5mm) (AUDIO) (SE830)	
SW7T09	1-786-353-11	TACT SW (TAPPING 5mm) (REC) (SE630/SE730/SE737/SX730/SX737)	
SW7T09	1-786-354-11	TACT SW (BULK 5mm) (REC) (SE830)	
SW7T12	1-786-353-11	TACT SW (TAPPING 5mm) (EJECT) (SE630/SE730/SE737/SX730/SX737)	
SW7T12	1-786-354-11	TACT SW (BULK 5mm) (EJECT) (SE830)	
SW7T13	1-786-354-11	TACT SW (BULK 5mm) (JOG) (SE830)	
SW7T14	1-786-353-11	TACT SW (TAPPING 5mm) (PLAY)	
SW7T15	1-786-353-11	TACT SW (TAPPING 5mm) (STOP)	
SW7T16	1-786-353-11	TACT SW (TAPPING 5mm) (REW)	
		MAIN BOARD	
		**********	
CN3A1S	1-823-022-11	CABLE FLAT 6P	
FC1SS1	1-576-527-11	FUSE CLIP	
FC1SS2	1-576-527-11	FUSE CLIP	
S601A	3-075-066-01	HOLDER-SENSOR	
S602A	3-075-066-01	HOLDER-SENSOR	
SC02	3-075-255-01	SCREW TAP 3X8	
		< COIL >	
BD1SD1	1-400-085-11	INDUCTOR 0uH (Main A model)	
BD1SD2	1-400-085-11	INDUCTOR 0uH	
BD1SD3	1-400-086-11	INDUCTOR 0uH (Main A model)	
BD1SD4	1-400-085-11	INDUCTOR 0uH (Main B model)	
BD1SS1	1-400-085-11	INDUCTOR 0uH	
BD1SS2	1-400-085-11	INDUCTOR 0uH	
L502	1-400-086-11	INDUCTOR 0uH	
L814	1-400-085-11	INDUCTOR 0uH	
L4N04	1-400-085-11	INDUCTOR 0uH (Hi-Fi model)	
⚠L1SS02	1-424-830-11	LINE FILTER 30mH	
L1SS31	1-424-828-11	COIL CHOKE 10uH	
L1SS32	1-424-828-11	COIL CHOKE 10uH	
W179	1-400-086-11	INDUCTOR 0uH (Main A model)	
W449	1-400-086-11	INDUCTOR 0uH (Main B model)	
		< CAPACITOR >	
C1SD03	1-165-557-11	CONDENSER 2200PF	
C1SD04	1-165-557-11	CONDENSER 2200PF	
C1SD12	1-165-574-11	CONDENSER FILM 10000PF	
C1SF11	1-165-574-11	CONDENSER FILM 10000PF	
C1SF13	1-100-002-11	CONDENSER FILM 22000PF	
⚠C1SS01	1-165-573-11	CONDENSER FILM 0.1uF	
⚠C1SS02	1-165-573-11	CONDENSER FILM 0.1uF	
C1SS12	1-100-530-11	CONDENSER CERAMIC DISC 100PF	
C1SS39	1-165-999-11	CONDENSER FILM 0.1uF	
		< CONNECTOR >	
CN301	1-815-685-11	CONNECTOR FPC 10P (Hi-Fi model)	
CN301	1-815-686-11	CONNECTOR FPC 6P (Mono model)	
CN1SS1	1-815-692-11	CONNECTOR HEADER 2P	
CN3A01	1-815-688-11	CONNECTOR FPC 6PSN	
		< DIODE >	
D301	1-804-407-11	DIODE 1N4148	
D302	1-805-264-11	DIODE 1N5819	
D401	1-805-264-11	DIODE 1N5819	
D601	1-805-264-11	DIODE 1N5819 (Main B model)	
D603	1-804-407-11	DIODE 1N4148	
D605	1-805-264-11	DIODE 1N5819	
D610	1-805-264-11	DIODE 1N5819 (Main A model)	
D612	1-805-264-11	DIODE 1N5819	
D701	1-804-407-11	DIODE 1N4148	
D702	1-804-407-11	DIODE 1N4148	
D703	1-804-407-11	DIODE 1N4148	
D704	1-804-407-11	DIODE 1N4148	
D805	1-804-407-11	DIODE 1N4148	
D4N01	1-804-407-11	DIODE 1N4148 (SE630)	

Ref. No.	Part No.	Description	Remarks
D4N01	1-805-264-11	DIODE 1N5819 (Main B model)	
D4N02	1-804-407-11	DIODE 1N4148 (Hi-Fi model)	
D6E01	1-804-407-11	DIODE 1N4148 (Main B model)	
D1P101	1-804-407-11	DIODE 1N4148	
D1P102	1-804-407-11	DIODE 1N4148	
D1P103	1-804-407-11	DIODE 1N4148 (SE230: B/Hi-Fi model)	
D1P104	1-804-407-11	DIODE 1N4148 (SE230: D, G, I/SE430/Hi-Fi model)	
D1SD10	1-804-412-11	DIODE FIT4	
D1SD31	1-804-412-11	DIODE FIT4	
D1SF11	1-804-413-11	DIODE IT5	
D1SF12	1-804-413-11	DIODE IT5	
D1SS01	1-804-413-11	DIODE IT5	
D1SS02	1-804-413-11	DIODE IT5	
D1SS03	1-804-413-11	DIODE IT5	
D1SS04	1-804-413-11	DIODE IT5	
D1SS11	1-804-408-11	DIODE UF4007	
D1SS31	1-804-412-11	DIODE FIT4	
D1SS32	1-804-411-11	DIODE UG2D	
D1SS33	1-805-266-11	DIODE SCHOTTKY SE55	
D1SS40	1-804-412-11	DIODE FIT4 (Main B model)	
D1SS41	1-804-412-11	DIODE FIT4 (Main B model)	
LD601	1-804-438-11	LED-IR (T/S LED)	
ZD401	1-804-414-11	DIODE ZENER UZP33B	
ZD701	1-805-286-11	DIODE ZENER MTZJ5.6B (Main B model)	
ZD702	1-805-287-11	DIODE ZENER MTZJ24D (Main B model)	
ZD703	1-805-011-11	DIODE UDZ9.1B (Main B model)	
ZD801	1-805-153-11	DIODE ZENER MTZ6.2B	
ZD802	1-804-418-11	DIODE ZENER MTZJ12B	
ZD803	1-804-418-11	DIODE ZENER MTZJ12B	
ZD804	1-804-418-11	DIODE ZENER MTZJ12B	
ZD805	1-804-418-11	DIODE ZENER MTZJ12B	
ZD806	1-804-418-11	DIODE ZENER MTZJ12B	
ZD807	1-804-418-11	DIODE ZENER MTZJ12B (Main B model)	
ZD808	1-804-418-11	DIODE ZENER MTZJ12B	
ZD809	1-804-418-11	DIODE ZENER MTZJ12B	
ZD810	1-804-418-11	DIODE ZENER MTZJ12B (Hi-Fi model)	
ZD811	1-804-418-11	DIODE ZENER MTZJ12B (Hi-Fi model)	
ZD812	1-804-418-11	DIODE ZENER MTZJ12B	
ZD813	1-804-418-11	DIODE ZENER MTZJ12B	
ZD814	1-805-011-11	DIODE UDZ9.1B	
ZD815	1-805-011-11	DIODE UDZ9.1B	
ZD1P03	1-804-417-11	DIODE ZENER MTZJ9.1B (SE230: B/Hi-Fi model)	
ZD1SF1	1-805-265-11	DIODE ZENER MTZJ4.3B	
		< DISPLAY >	
DT701	1-518-816-11	VFD DISPLAY (Main B model)	
DT701	1-518-907-11	LED DISPLAY (Main A model)	
		< FUSE >	
⚠F1SS01	1-576-526-11	FUSE T.L (1.6A/250V)	
⚠FR01	1-576-729-11	FUSE-RADIAL LEAD (1A)	
⚠FR02	1-576-729-11	FUSE-RADIAL LEAD (1A)	

Ref. No.	Part No.	Description	Remarks
		< IC >	
IC301	1-804-702-11	IC VIDEO	
IC501	1-804-703-11	IC HIFI (Hi-Fi model)	
IC601	1-805-270-11	IC MICON (WE) (SE230/SE630: B, D, E/SE730: B, D, E, G, I/SE737/SE830: B, D, E, G/SX730: D, E/SX737)	
IC601	1-805-271-11	IC MICON (EE) (SE430/SE630: N/SE730: N/SE830: N/SX730: N)	
IC604	1-804-444-11	IC KA7533	
IC605	1-804-432-11	IC 524C80D81	
IC608	1-804-480-11	IC VOL-DETECTOR 7042 (SE430/SE630/SE730: N/SE830: N/SX730: N)	
IC701	1-804-706-11	IC LED DRIVER (Main A model)	
IC701	1-805-288-11	IC AV LINK (Main B model)	
IC801	1-804-700-11	IC CANAL (MONO) (Mono model)	
IC1SF1	1-805-268-11	IC PWM CONTROLLER	
⚠IC1SS1	1-804-784-11	IC PHOTO COUPLER	
IC1SS2	1-804-445-11	IC KA4318	
IC3S01	1-804-701-11	IC SECAM (SE230:B/SE630:B/SE730:B/SE830:B)	
IC4N01	1-804-795-11	IC NICAM (SE630: B, E, N/SE730: B, E, G, I, N/SE737/SE830: B, G, N/SX730: E, N)	
IC4N01	1-805-269-11	IC ZWIE (SE630: D/SE730: D, E, SE737/SE830:D/SX730: D, E/SX737)	
IC6P01	1-804-453-11	IC PDC/OSD (SE230)	
IC6P01	1-804-454-11	IC OSD (EXCEPT SE230)	
RM701	1-477-308-11	IC REMOCON MOD (TSOP2238WE1) (EXCEPT SE630)	
RM702	1-477-308-11	IC REMOCON MOD (TSOP2238WE1) (SE630)	
		< JACK SCART >	
JC801	1-815-697-11	JACK SCART 42P (LINE-1/2 or 3)	
		< PHOTO INTERRUPTER >	
PT601	1-804-770-11	TRANSISTOR PHOTO INTERRUPTER	
PT602	1-804-770-11	TRANSISTOR PHOTO INTERRUPTER	
		< TRANSFORMER >	
⚠PT1SS1	1-439-880-11	TRANS SWITCHING EE2621 (Main B model)	
		< TRANSISTOR >	
Q302	1-804-421-11	TRANSISTOR KSC945 (SE230: B/SE630: B/SE730: B/SE830: B)	
Q350	1-804-420-11	TRANSISTOR KSA733	
Q351	1-804-420-11	TRANSISTOR KSA733	
Q601	1-804-428-11	TRANSISTOR KSR1004	
Q603	1-804-421-11	TRANSISTOR KSC945 (SE830)	
Q802	1-804-428-11	TRANSISTOR KSR1004	
Q803	1-804-428-11	TRANSISTOR KSR1004	
Q804	1-804-429-11	TRANSISTOR KSR2001	
Q806	1-804-429-11	TRANSISTOR KSR2001	
Q809	1-804-421-11	TRANSISTOR KSC945	

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description	Remarks
Q810	1-804-421-11	TRANSISTOR KSC945	
Q3A01	1-804-421-11	TRANSISTOR KSC945	
Q3A02	1-804-420-11	TRANSISTOR KSA733	
Q3A03	1-804-422-11	TRANSISTOR KTC3023	
Q3A04	1-804-422-11	TRANSISTOR KTC3023	
Q3A05	1-804-422-11	TRANSISTOR KTC3023	
Q3A06	1-804-420-11	TRANSISTOR KSA733	
Q3D02	1-804-420-11	TRANSISTOR KSA733 (SE730: B/SE830)	
Q3D01	1-804-422-11	TRANSISTOR KTC3023 (SE830)	
Q3D07	1-804-428-11	TRANSISTOR KSR1004 (SE830)	
Q3P01	1-804-420-11	TRANSISTOR KSA733 (SE630: B, D)	
Q3P02	1-804-420-11	TRANSISTOR KSA733 (SE630: B, D)	
Q6E01	1-804-422-11	TRANSISTOR KTC3023 (Main B model)	
Q6E02	1-804-421-11	TRANSISTOR KSC945 (Main B model)	
Q6E03	1-804-429-11	TRANSISTOR KSR2001 (Main B model)	
Q6P01	1-804-420-11	TRANSISTOR KSA733 (Mono model/SE630: E, N/Main B model)	
Q6P02	1-804-420-11	TRANSISTOR KSA733 (Mono model/SE630: E, N/Main B model)	
Q1P101	1-804-423-11	TRANSISTOR KSA928AY	
Q1P102	1-804-423-11	TRANSISTOR KSA928AY	
Q1P103	1-804-424-11	TRANSISTOR KSC2328AY (Hi-Fi model)	
Q1P104	1-804-423-11	TRANSISTOR KSA928AY	
Q1P105	1-804-427-11	TRANSISTOR KSR1001	
Q1P106	1-804-421-11	TRANSISTOR KSC945 (Hi-Fi model)	
Q1P107	1-804-429-11	TRANSISTOR KSR2001 (Hi-Fi model)	
Q1P108	1-804-423-11	TRANSISTOR KSA928AY (Hi-Fi model)	
Q1P109	1-805-267-11	TRANSISTOR KSR1003	
Q1P110	1-804-423-11	TRANSISTOR KSA928AY	
Q1P111	1-805-267-11	TRANSISTOR KSR1003 (Hi-Fi model)	
		< RESISTOR >	
R1SD16	1-245-556-11	R-METAL OXIDE (S)	
R1SF15	1-245-555-11	R-METAL OXIDE	
R1SS10	1-244-373-11	RESISTOR 2.7	
R1SS11	1-245-556-11	R-METAL OXIDE (S)	
R1SS33	1-244-371-11	RESISTOR 2.2K	
R1SS34	1-244-371-11	RESISTOR 2.2K	
		< SWITCH >	
RS601	1-786-199-11	SWITCH REC (REC SWITCH)	
SW601	1-786-198-11	SWITCH MODE (MODE SWITCH)	
SW701	1-786-353-11	TACT SW (TAPPING 5mm) (POWER) (Mono model)	
SW703	1-786-353-11	TACT SW (TAPPING 5mm) (EJECT) (Mono model)	
SW708	1-786-353-11	TACT SW (TAPPING 5mm) (PROGRAM+) (Mono model)	
SW709	1-786-353-11	TACT SW (TAPPING 5mm) (PROGRAM-) (Mono model)	
SW711	1-786-353-11	TACT SW (TAPPING 5mm) (TEST) (Main A model)	
SW712	1-786-353-11	TACT SW (TAPPING 5mm) (PROGRAM+) (SE630/SE730/SE737/SX730/SX737)	
SW713	1-786-353-11	TACT SW (TAPPING 5mm) (PROGRAM-) (SE630/SE730/SE737/SX730/SX737)	
SW714	1-786-353-11	TACT SW (TAPPING 5mm) (PLAY) (Mono model)	
SW715	1-786-353-11	TACT SW (TAPPING 5mm) (REC) (Mono model)	
SW716	1-786-353-11	TACT SW (TAPPING 5mm) (FF) (Mono model)	
SW717	1-786-353-11	TACT SW (TAPPING 5mm) (STOP) (Mono model)	
SW719	1-786-353-11	TACT SW (TAPPING 5mm) (PAUSE) (Mono model)	
SW720	1-786-353-11	TACT SW (TAPPING 5mm) (REW) (Mono model)	
		< PHOTO TRANSISTOR >	
S601	1-804-439-11	PHOTO TRANSISTOR	
S602	1-804-439-11	PHOTO TRANSISTOR	
		< TUNER >	
TM401	1-693-584-11	TUNER PAL B/G (MONO) (SE230: D)	
TM401	1-693-585-11	TUNER PAL I (ALL) (SE230: G/SE730: G/SE830: G)	
TM401	1-693-589-11	TUNER PAL B/G/D/K/I (SE230: I/SE430/SE630: D, E, N/SE730: D, E, I, N/SE737/SE830: D, E, N/SX730/SX737)	
TM401	1-693-633-11	TUNER PAL (SE230: B/SE630: B/SE730: B/SE830: B)	
		< VARISTOR >	
⚠VA1SS1	1-804-437-11	VARISTOR	
		< VIBRATOR >	
XT301	1-795-330-11	VIBRATOR CRYSTAL (4.433619 MHz)	
XT601	1-795-332-11	VIBRATOR CRYSTAL (32.768 kHz) (SE230: B/SE430/SE630/SE730: N/SE830: N/SX730: N)	
XT602	1-795-331-11	VIBRATOR CRYSTAL (8 MHz)	
XT750	1-795-625-11	CRYSTAL (5 MHz) (Main B model)	
XT4N01	1-795-615-11	CRYSTAL (18.432 MHz) (SE230: B/Hi-Fi model)	
		MISCELLANEOUS	
		**********	
3	1-786-352-11	SW-DIAL TIMER (SE830)	
⚠5	1-823-023-11	POWER CORD KKP419C (SE230: B, D/SE430)	
⚠5	1-823-023-11	POWER CORD KKP419 (SE630/SE730: B, D, E, N/SE737/SE830: B, D, E, N/SX730/SX737)	
⚠5	1-823-025-11	POWER CORD Y352 (SE230: G, I)	
⚠5	1-823-025-11	POWER CORD Y352 (SE730: G, I/SE830: G)	
109	1-796-704-11	ASSY CLYNDER 6HD (SECAM) (SE630: B/SE730: B/SE830: B)	
109	1-796-705-11	ASSY CLYNDER 6HD (SE630: D, E, N/SE730: D, E, G, I, N/SE737/SE830: D, E, G, N/SX730/SX737)	
109	1-796-706-11	ASSY CLYNDER 2HD (SE230: B, D)	
109	1-796-707-11	ASSY CLYNDER 2HD (LP) (SE230: G, I)	
109	1-796-708-11	ASSY CLYNDER 4HD (SE430)	
118	1-796-434-11	LOADING ASSY, MOTOR	
152	1-796-432-11	MOTOR CAPSTAN	

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remarks
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-477-269-11	COMMANDER, STANDARD (RMT-V405)	(SE230: D, G, I/SE430)
	1-477-270-11	COMMANDER, STANDARD (RMT-V405A)	(SE230: B)
	1-477-271-11	COMMANDER, STANDARD (RMT-V406)	(SE630: E, N/SE730: E, G, I, N)
	1-477-272-11	COMMANDER, STANDARD (RMT-V406A)	(SE630: B, D/SE730: B, D)
	1-477-273-11	COMMANDER, STANDARD (RMT-V407A)	(SE737/SE830: D, E, G, N)
	1-477-274-11	COMMANDER, STANDARD (RMT-V407B)	(SE830: B)
	1-477-275-11	COMMANDER, STANDARD (RMT-V407C)	(SX737)
	1-477-276-11	COMMANDER, STANDARD (RMT-V406B)	(SX730)
	1-823-126-11	CABLE RF SECAM	(SE230: B/SE630: B/SE730: B/SE830: B)
	3-075-088-01	COVER (S) REMOTE CONTROL BATTERY	(for RMT-V405/V405A/V406/V406A/V407A/V407B) (SE230/SE430/SE630/SE730/SE737/SE830)
	3-075-089-01	COVER (B) REMOTE CONTROL BATTERY	(for RMT-V406B/V407C) (SX730/SX737)
	3-081-524-11	MANUAL, INSTRUCTION (FRENCH)	(SE230: D/SE630: D, E/SE730: D, E/SE737: E/SE830: D, E/SX730: D, E/SX737)
	3-081-524-21	MANUAL, INSTRUCTION (SPANISH)	(SE230: D/SE630: E/SE730: E/SE737: E/SX730: E)
	3-081-524-41	MANUAL, INSTRUCTION (ITALIAN)	(SE230: D/SE630: D/SE730: D/SE737: E/SE830: D/SX730: D)
	3-081-524-51	MANUAL, INSTRUCTION (DUTCH)	(SE230: D/SE630: D, E/SE730: D, E/SE737: E/SE830: D, E/SX730: D, E)
	3-081-524-61	MANUAL, INSTRUCTION (PORTUGUESE)	(SE230: D/SE630: E/SE730: E/SE830: E/SX730: E)
	3-081-524-71	MANUAL, INSTRUCTION (GREEK)	(SE230: D/SE630: E/SE730: E/SE830: E/SX730: E)
	3-081-525-11	MANUAL, INSTRUCTION	(SE630: E/SE730: E/SE737: E/SE830: E/SX730: E)
	3-081-525-21	MANUAL, INSTRUCTION	(SE630: E/SE730: E/SE737: E/SE830: E/SX730: E)
	3-081-525-31	MANUAL, INSTRUCTION	(SE630: E/SE730: E/SE737: E/SE830: E/SX730: E)
	3-081-621-11	MANUAL, INSTRUCTION (FRENCH)	(SE230: B/SE630: B/SE730: B/SE830: B)
	3-081-622-11	MANUAL, INSTRUCTION (ENGLISH)	(SE230: G, I/SE730: G, I/SE830: G)
	3-081-623-21	MANUAL, INSTRUCTION (RUSSIAN)	(SE430/SE630: N/SE730: N/SE830: N)
	3-081-623-31	MANUAL, INSTRUCTION	(SE430/SE630: N/SE730: N/SE830: N/SX730: N)
	3-081-623-41	MANUAL, INSTRUCTION (POLISH)	(SE630: N/SE730: N/SE830: N/SX730: N)
	3-081-623-51	MANUAL, INSTRUCTION (HUNGARIAN)	(SE630: N/SE730: N/SE830: N/SX730: N)

9-929-739-11

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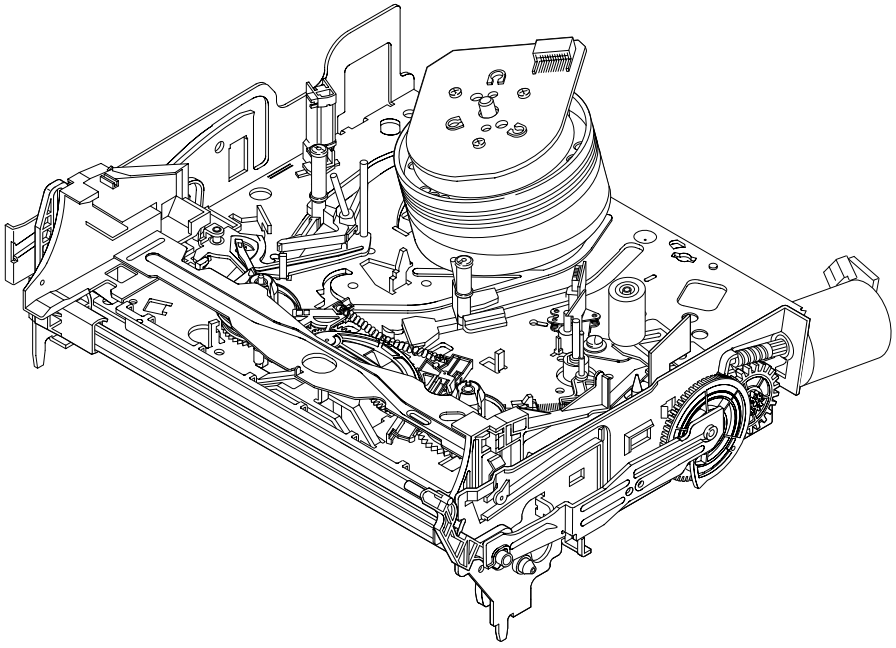
VHS MECHANICAL ADJUSTMENT MANUAL VII

TS-10 MECHANISM

Please use this manual with the service manual.



VHS MECHANISM DECK

SONY®

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1. Disassembly and Reassembly

1-1 Deck Parts Locations

1-1-1 Top View

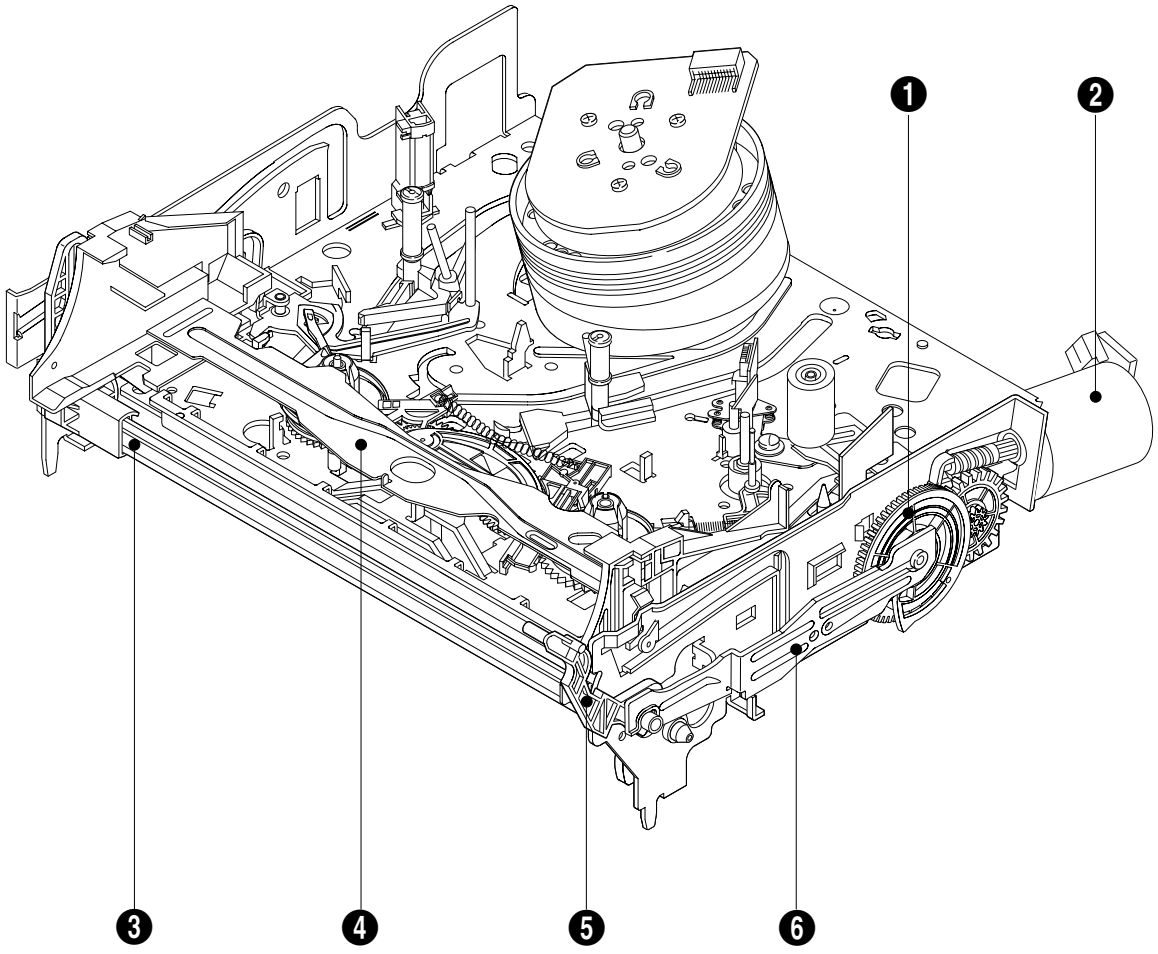


Fig. 1-1 Top parts Location-1

1. GEAR FL CAM
2. MOTOR LOADING ASS'Y
3. LEVER FL ARM ASS'Y
4. HOLDER FL CASSETTE ASS'Y
5. LEVER FL DOOR
6. SLIDER FL DRIVE

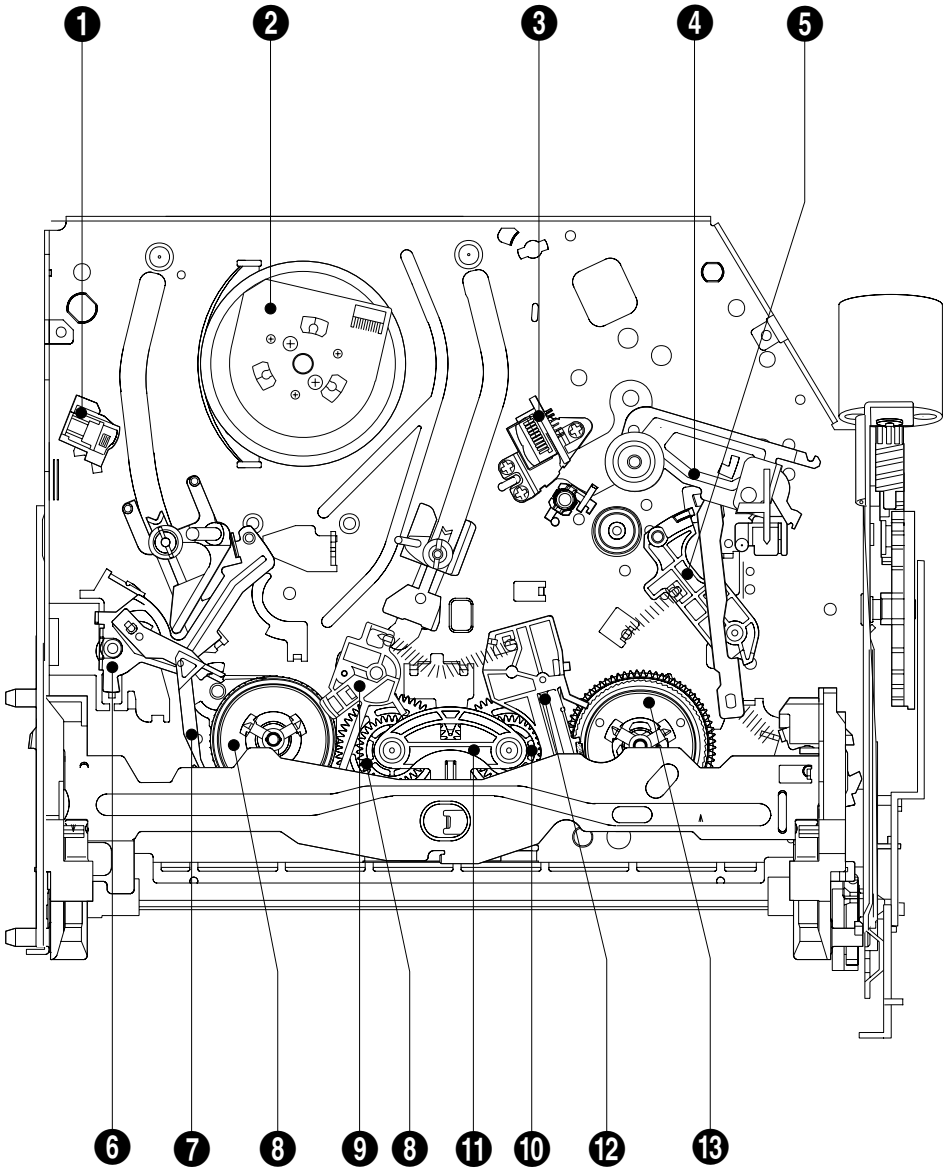


Fig. 1-2 Top Parts Location-2

❶ FE HEAD
❷ CYLINDER ASS'Y
❸ ACE HEAD ASS'Y
❹ LEVER UNIT PINCH ASS'Y
❺ LEVER #9 GUIDE ASS'Y
❻ LEVER TENSION ASS'Y
❼ BAND BRAKE ASS'Y
❽ DISK S REEL
❾ LEVER S BRAKE ASS'Y
❿ GEAR IDLE
⓫ LEVER IDLE
⓬ LEVER T BRAKE ASS'Y
⓭ DISK T REEL

1-1-2 Bottom View

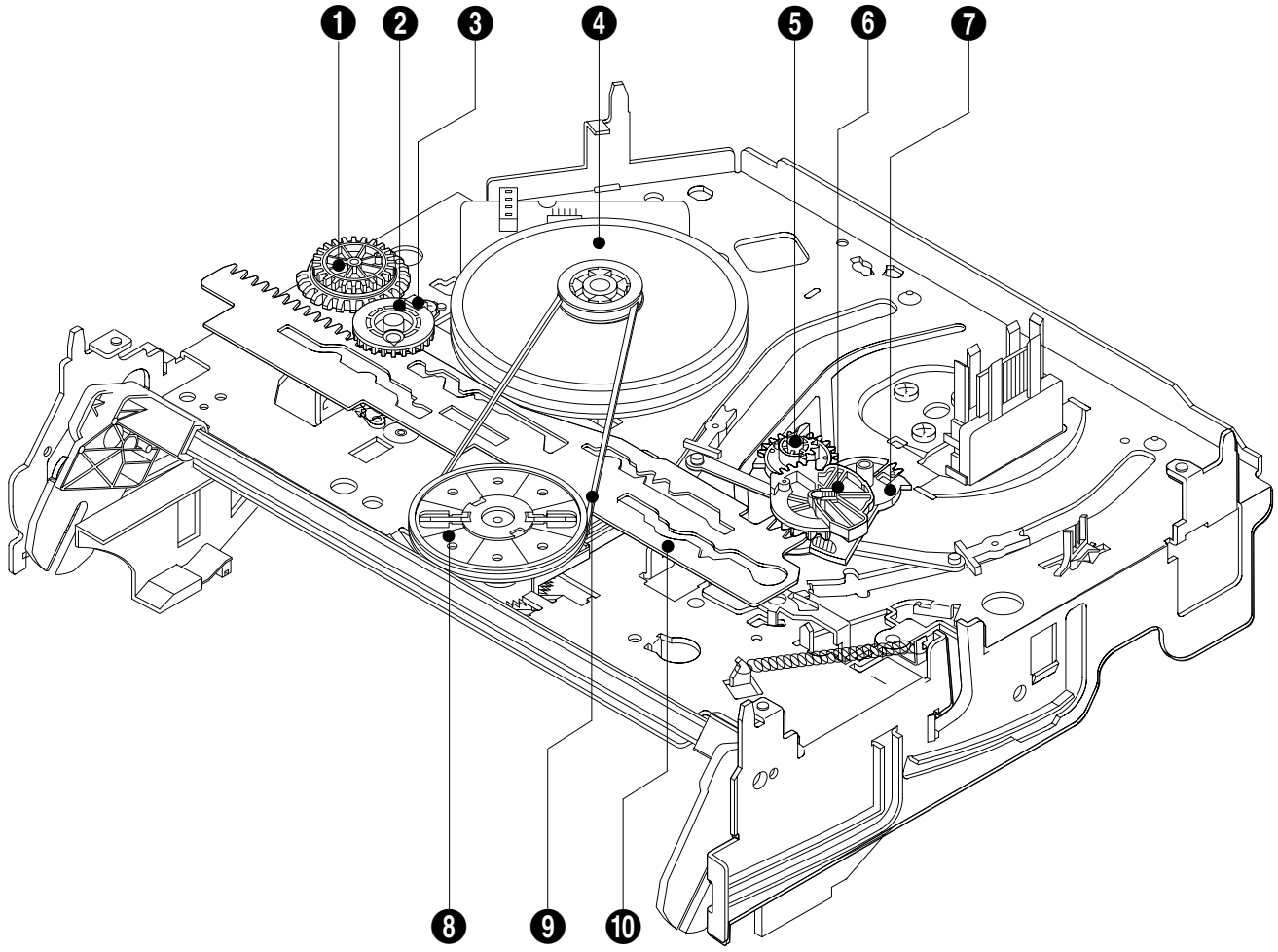


Fig. 1-3 Bottom Parts Location

❶ GEAR JOINT 1
❷ GEAR JOINT 2
❸ BRACKET GEAR
❹ MOTOR CAPSTAN ASS'Y
❺ LEVER T LOAD ASS'Y
❻ GEAR LOADING DRIVE
❼ LEVER S LOAD ASS'Y
❽ HOLDER CLUTCH ASS'Y
❾ BELT PULLEY
❿ SLIDER CAM

1-2 Main Deck

1-2-1 Lever FL Door Removal

1) Push the Holder FL Cassette Ass'y ❶ about 20mm in the direction of arrow “A”.
2) Rotate the Lever FL Door ❷ in the direction of arrow “B”.
3) Release the Hook ❸ and Remove the Lever FL Door ❷ in the direction of arrow “C”.

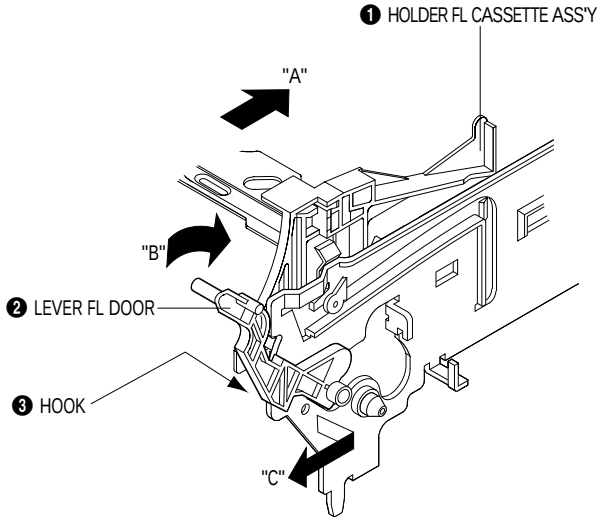


Fig. 1-4 Lever FL Door Removal

1-2-2 Holder FL Cassette Ass’y Removal

1) Pull the Holder FL Cassette Ass'y ❶ to the eject position.
2) Pull the Holder FL Cassette Ass'y ❶ as grasping the Holder FL Cassette Ass'y ❶ and Lever FL Cassette-R ❷ in the same time to release hooking from Main Base until the Boss [A] of Holder FL Cassette Ass'y ❶ is taken out from the Rail [B].
3) Lift the Holder FL Cassette Ass'y ❶, in this time, you have to grasp the Lever FL Cassette-R ❷ Continuously until the Holder FL Cassette Ass'y ❶ is taken out completely.

Note : Be sure to insert Lever FL Cassette-R ❷ in the direction of “A” to prevent separation and breakage of the Lever FL Cassette-R ❷ at disassembling and reassembling.

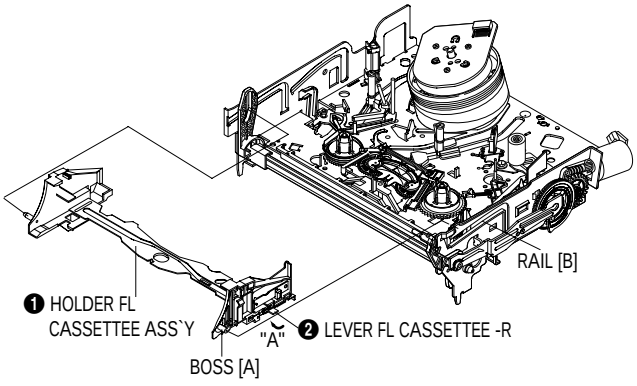


Fig. 1-5 Holder FL Cassette Ass’y Removal

1-2-3 Slider FL Drive, Gear FL Cam Removal

1) Pull the Slider FL Drive ❶ to the front direction.
2) Remove the Slider FL Drive ❶ in the direction of arrow. (Refer to Fig. 1-6)
3) Remove the Gear FL cam ❷.

Note : When reinstalling be sure to reassemble Slider FL drive ❶ after you insert the Boss of Lever FL ARM-R in Groove of Slider Fl drive ❶.

Assembly : Align the Gear FL Cam ❶ with the Gear worm wheel Post as shown drawing.
(Refer to Timing point)

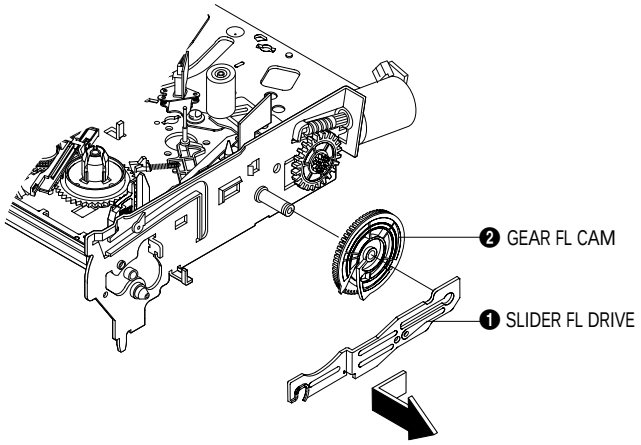


Fig. 1-6 Slider FL Drive Removal

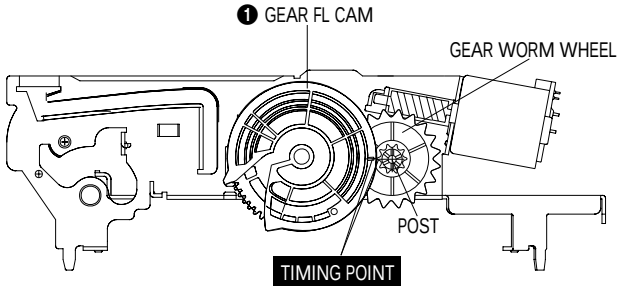


Fig. 1-7 Gear FL Cam, Gear Worm

1-2-4 Lever FL Arm Ass'y Removal

1) Push the hole "A" in the direction of arrow "B" use the pin.(about Dia.2.5)
2) Pull out the Lever FL Arm Ass'y ❶ from the Boss of Main Base.
3) Remove the Lever FL Arm Ass'y ❶ in the direction of arrow "C".

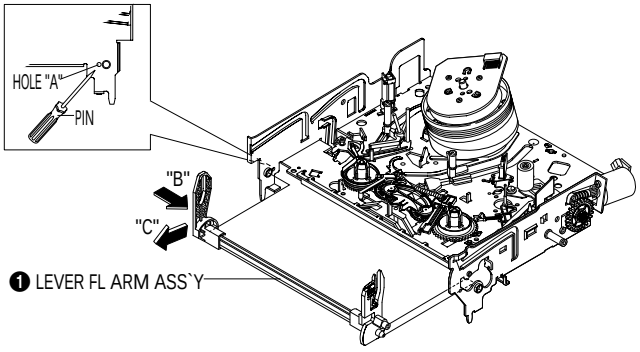


Fig. 1-8 Lever FL Arm Ass'y Removal

1-2-5 Gear Worm Wheel Removal

1) Remove the Gear Worm wheel ❶.

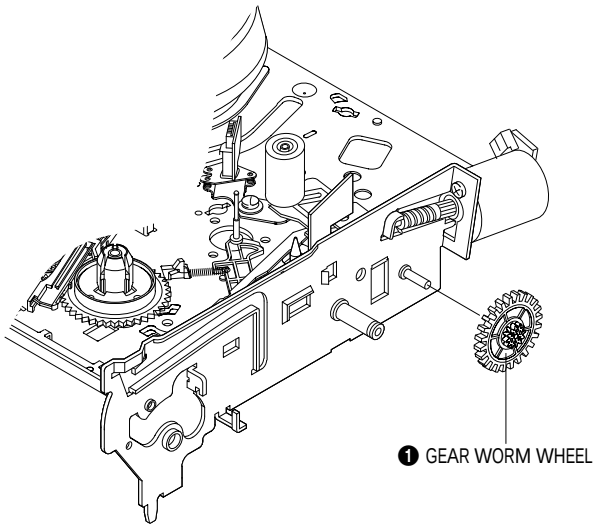


Fig. 1-9 Gear Worm Wheel Removal

1-2-6 Motor Loading Ass'y Removal

1) Remove the screw ❶.
2) Remove the Motor Loading Ass'y ❷.

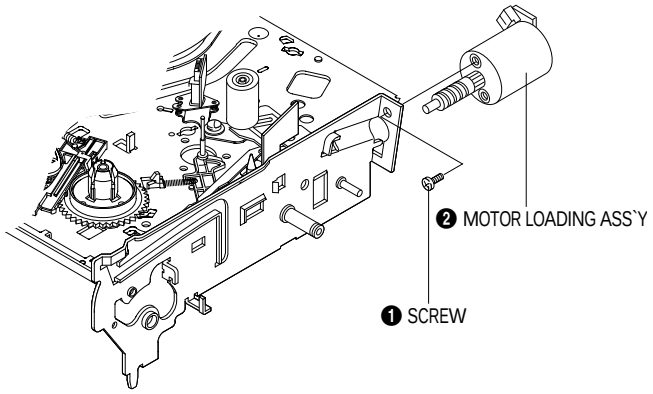


Fig. 1-10 Motor Loading Ass'y Removal

1-2-7 Bracket Gear, Gear Joint 2, 1 Removal

1) Remove the SCREW ❶.
2) Remove the Bracket Gear ❷.
3) Remove the Gear Joint 2 ❸.
4) Remove the Gear Joint 1 ❹.

Assembly :

1) Be sure to align dot mark of Gear Joint 1 ❶ with dot mark of Gear Joint 2 ❷ as shown Fig 1-12. (Refer to Timing point1)
2) Confirm the Timing Point 2 of the Gear Joint 2 ❷ and Slider Cam ❸.

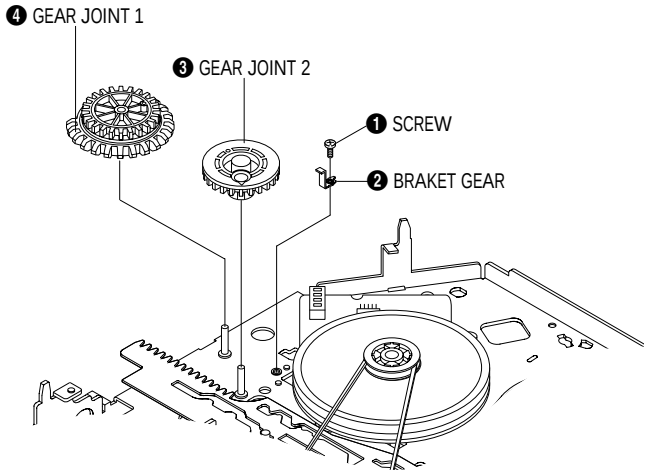


Fig. 1-11 Bracket Gear, Gear Joint 1,2 Removal

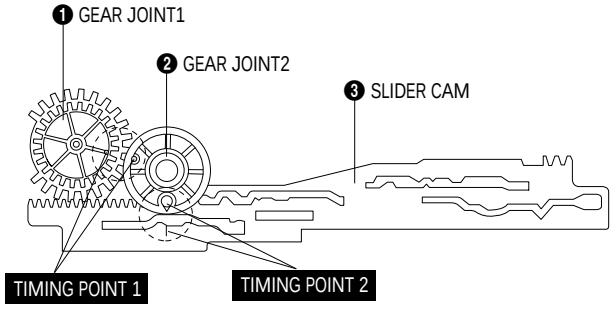


Fig. 1-12 Gear Joint 1,2 Assembly

1-2-8 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Removal

1) Remove the Belt Pulley. (Refer to Fig. 1-30)
2) Remove the Gear Loading Drive ❶ after releasing Hook [A] in the direction arrow as shown in detail drawing.
3) Remove the Slider Cam ❷.
4) Remove the Lever Load S ❸, Link Load S ❺ & Lever Load T ❹, Link Load T ❻.

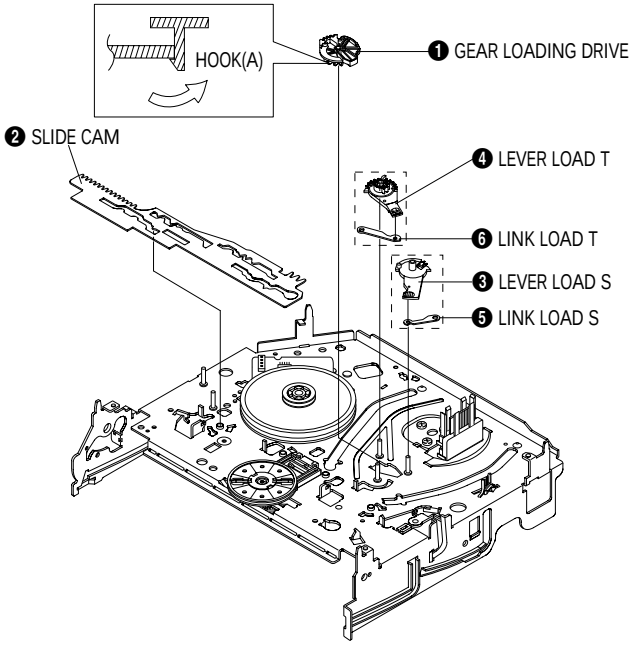


Fig. 1-13 Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y Removal

1-2-9 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

1) When reinstalling, be sure to align dot of Lever Load T Ass'y ❶ with dot of Lever Load S Ass'y ❷ as shown in drawing, (Refer to Timing Point 1).
2) Insert the Pin A,B,C,D into the Slider Cam ❸ hole,
3) Be sure to align dot of Lever Load T ❶ and dot of Gear Loading Drive ❹, (Refer to Timing Point 2).
4) Aline dot of Gear Loading drive ❹ with mark of Slider Cam ❸ as shown in drawing(Refer to Timing Point 3).

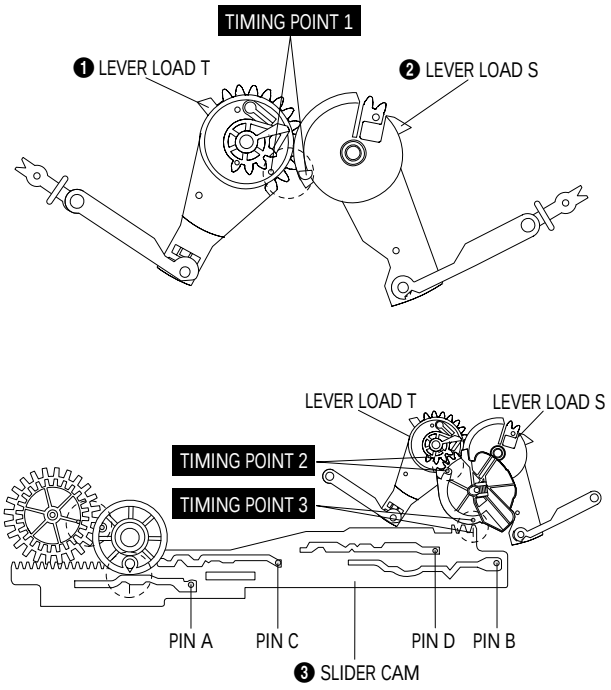


Fig. 1-14 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

1-2-10 Lever Pinch Drive, Lever Tension Drive Removal

1) Remove the Lever Pinch Drive ❶, Lever Tension Drive ❷.

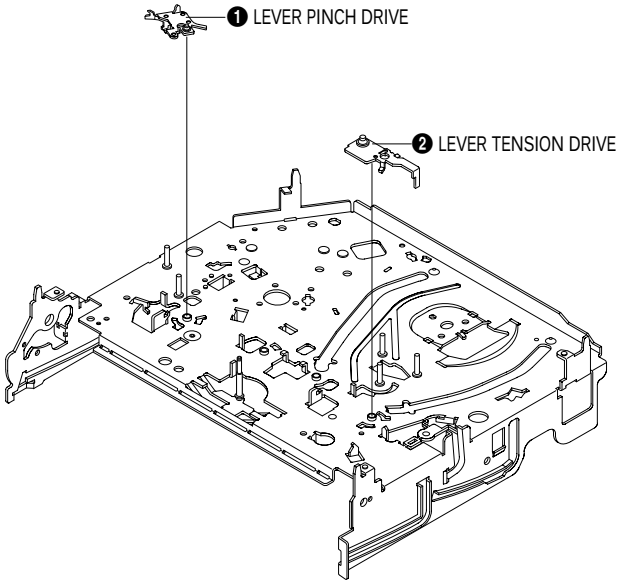


Fig. 1-15 Lever Pinch Drive, Lever Tension Drive Removal

1-2-11 Lever Tension Ass'y, Band Brake Ass'y Removal

1) Remove the Lever Brake S Ass'y (Refer to Fig 1-17).
2) Remove the Spring Tension Lever ❶.
3) Rotate stopper of Main Base in the direction of arrow "A".
4) Lift the Lever Tension Ass'y ❷ & Band brake Ass'y ❸.

Note :
1) When replacing the Lever Tension Ass'y ❷, be sure to apply Grease on the post,
2) Take care not to touch stain on the felt side, and not to be folder and broken Band brake Ass'y
3) After Lever Tension Ass'y seated, Rotate stopper of Main Base to the Mark[B].

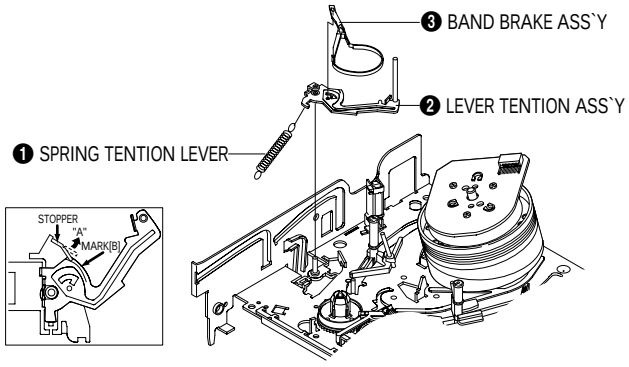


Fig. 1-16 Lever Tension Ass'y, Band Brake Ass'y Removal

1-2-12 Lever Brake S, T Ass'y Removal

1) Release the Hook [A] and the Hook [B], [C] in the direction of arrow as shown in Fig 1-17.
2) Lift the Lever S, T Brake Ass'y ❶, ❷ with spring brake ❸.

Assembly :
1)Assembly the Lever S Brake Ass'y ❶ on the Main Base.
2)Assembly the Lever T Brake Ass'y ❷ with spring brake ❸.

Note : Take extreme care not to be folded and transformed Spring Brake at removing or reinstalling.

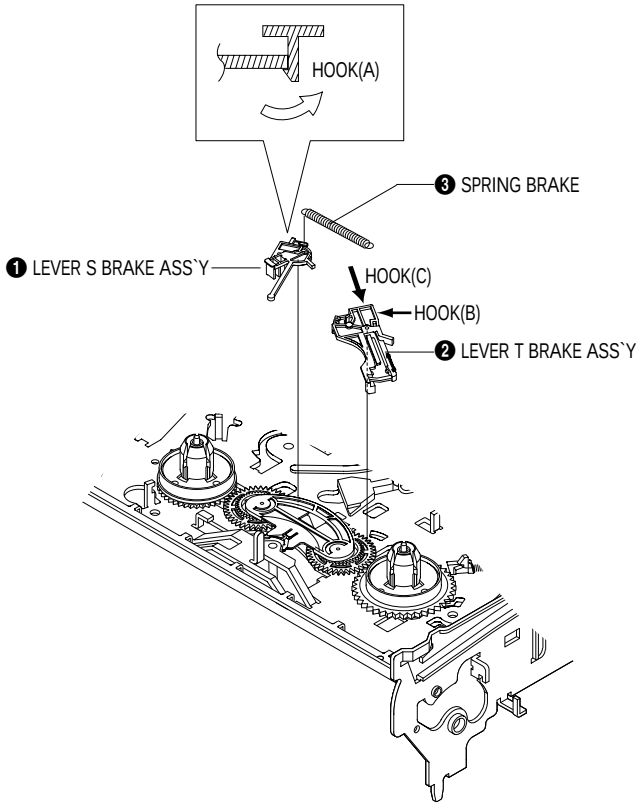


Fig. 1-17 Lever Brake S, T Ass'y Removal

1-2-13 Gear Idle Ass'y Removal

1) Push the Lever Idle ❶ in the direction of arrow "A", "B".
2) Lift the Lever Idle ❶.

Assembly :
1) Apply oil in two Bosses of Lever Idle ❶.
2) Assemble the Gear Idle ❷ with the Lever Idle ❶.

Note : When replacing the Gear Idle ❷, be sure to add oil in the boss of Lever Idle ❶.

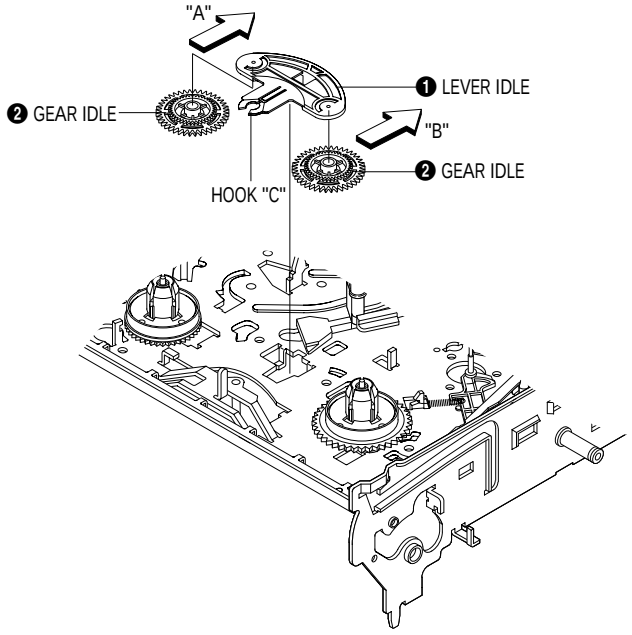


Fig. 1-18 Gear Idle Ass'y Removal

1-2-14 Disk S, T Reel Removal

1) Lift the Disk S, T Reel ❶, ❷.

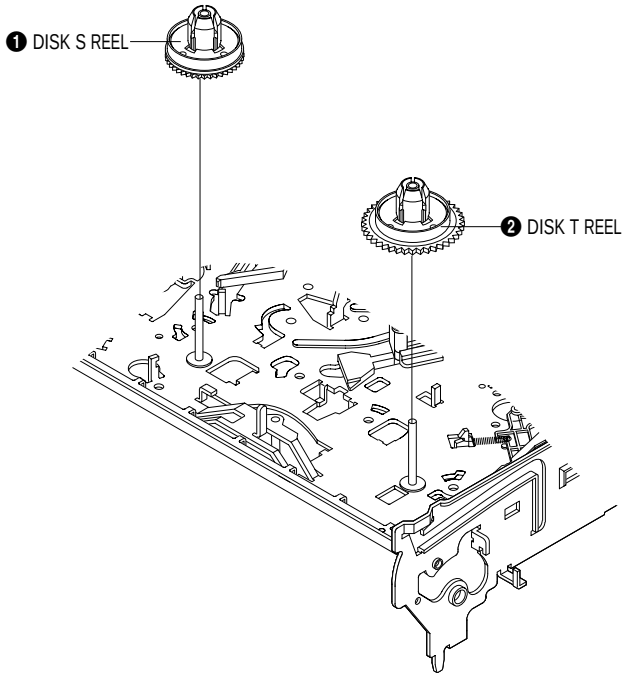


Fig. 1-19 Disk S, T Reel Removal

1-2-15 Holder Clutch Ass'y Removal

1) Remove the Washer Slit ❶.
2) Lift the Holder Clutch Ass'y ❷.

Note : When you reinstall Holder Clutch Ass'y
1) Check the condition of spring as shown in detail A.
2) Don't push Holder Clutch Ass'y down with excessive force Just insert Holder Clutch Ass'y into post center with dead force and Rotate it smoothly.
   Be sure to confirm that spring is in the slit of Gear Center Ass'y as shown in detail B.

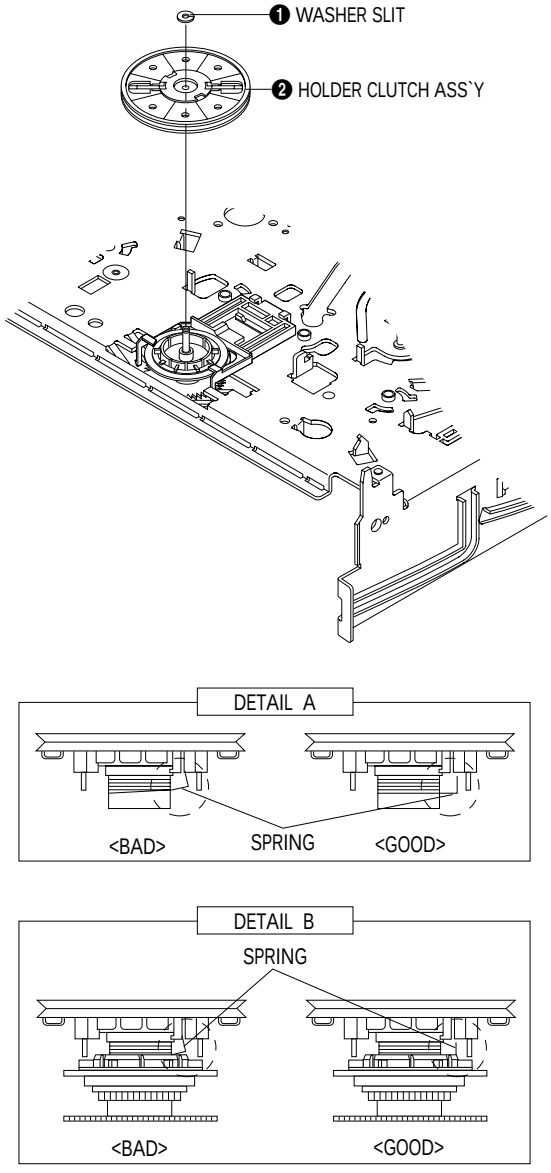


Fig. 1-20 Holder Clutch Ass'y Removal

1-2-16 Lever Up Down Ass'y, Gear Center Ass'y Removal

1) Remove the 2 hooks in the direction of arrow as shown Fig. 1-21 and lift the Lever Up Down Ass'y ❶.
2) Lift the Gear Center Ass'y ❷.

Assembly :
1) Insert the Lever Up Down Ass'y ❶ in the rectangular holes on Main Base as shown in Fig 1-22.
2) Lift the Lever Up Down Ass'y ❶ about 35 degree.(Refer to Fig 1-22)
3) Insert Ring of the Gear Center Ass'y ❷ in the Guide of the Lever Up Down Ass'y ❶.
4) Insert the Gear Center Ass'y ❷ in the post on Main Base.
5) Push down the Lever Up Down Ass'y ❶ for locking of the Hook.

Note :
1) Take care not to separate and sentence does not mark sense.
2) Be sure to confirm that Ring of the Gear Center Ass'y ❷ is in the Guide of the Lever Up Down Ass'y ❶ after finishing assembly of Lever Up

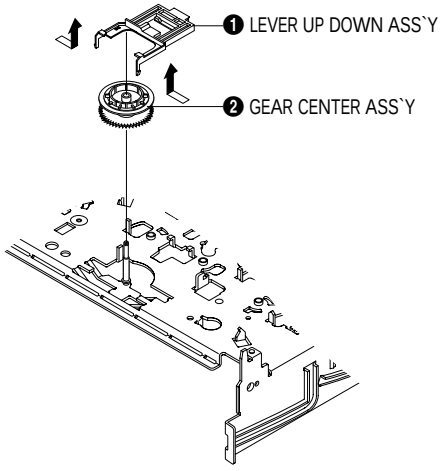


Fig. 1-21 Lever Up Down Ass'y Removal

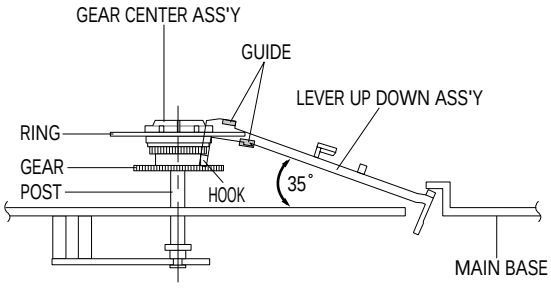


Fig. 1-22 Lever Up Down Ass'y Removal

1-2-17 Guide Cassette Door Removal

1) Lift the Hook [A].
2) Rotate the Guide Cassette Door ❶ in the direction of arrow.

Note : After reinstalling the Guide Cassette Door ❶ sure the Hook [A].

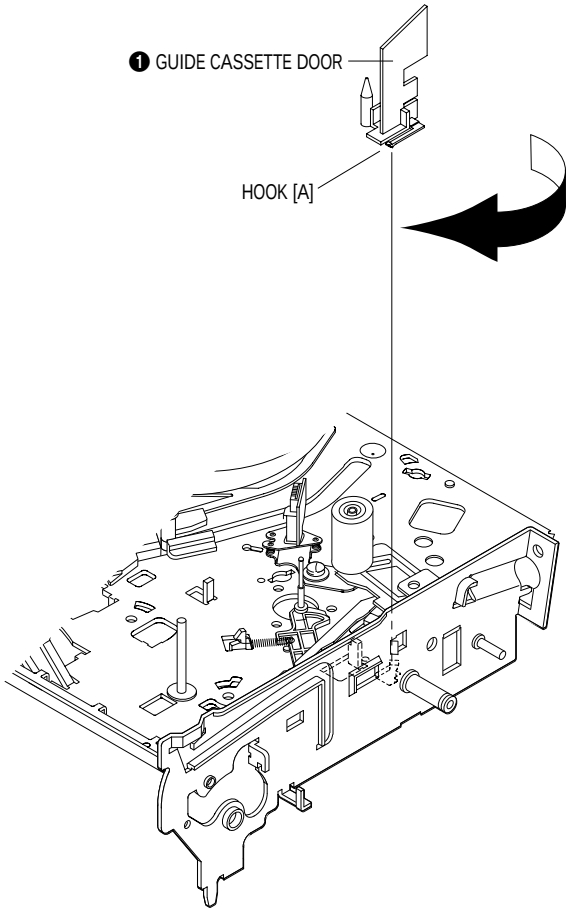


Fig. 1-23 Guide Cassette Door Removal

1-2-18 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

1) Lift the Unit Pinch Ass'y ❶.
2) Remove the Plate Joint ❷ from Lever Pinch Drive.
3) Remove the Spring Pinch Drive ❸.

Note :
1) Take extreme care not to touch the grease on the Roller Pinch.
2) When reinstalling, be sure to apply grease on the post pinch roller.

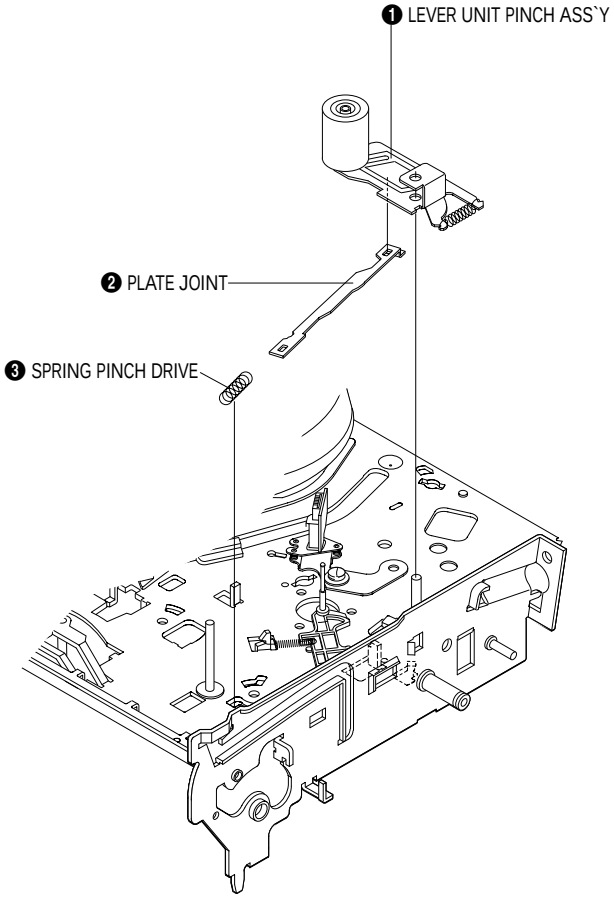


Fig. 1-24 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

1-2-19 Lever #9 Guide Ass'y Removal

1) Remove the Spring #9 Guide ❶.
2) Lift the Spring #9 Guide Ass'y ❷ in the direction of arrow "A".

Note :
1) Take extreme care not to get grease on the tape Guide Post.
2) After reinstalling, check the bottom side of the Post #9 Guide to the top side of Main Base.

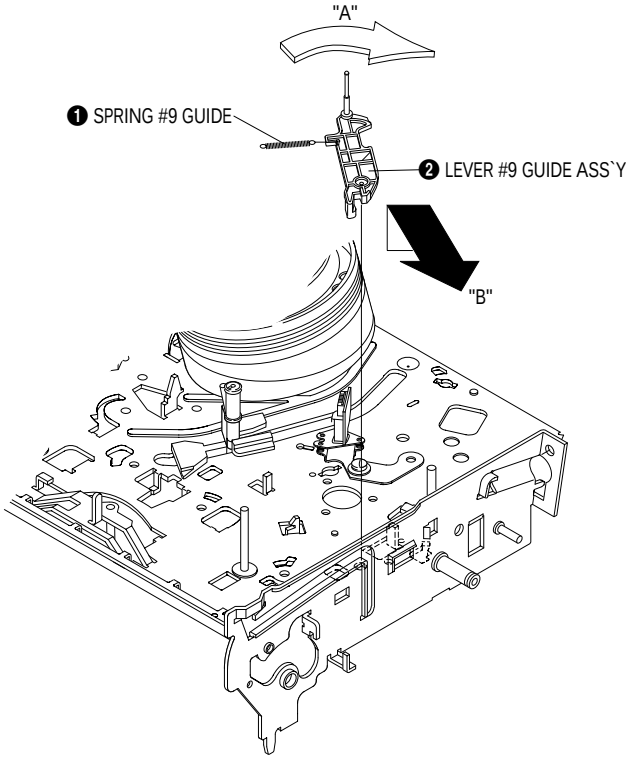


Fig. 1-25 Lever #9 Guide Ass'y Removal

1-2-20 FE Head Removal

1) Remove the screw ❶.
2) Lift the FE Head ❷.

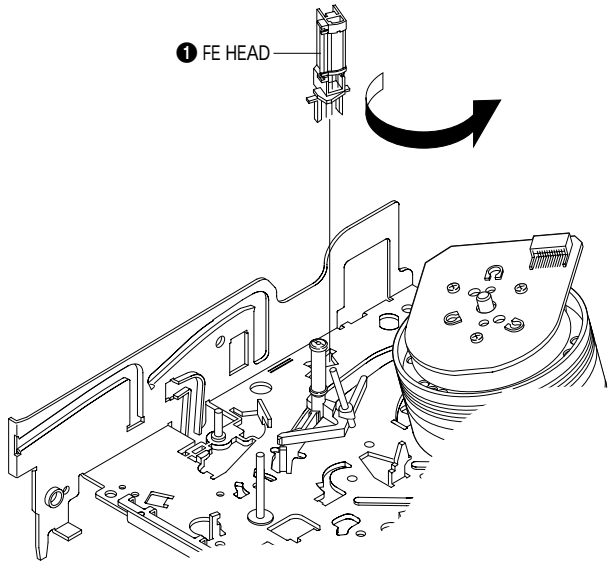


Fig. 1-26 FE Head Removal

1-2-21 ACE Head Removal

1) Pull out the FPC from connector of ACE Head Ass'y ❷.
2) Remove the screw ❶.
3) Lift the ACE Head Ass'y ❷.

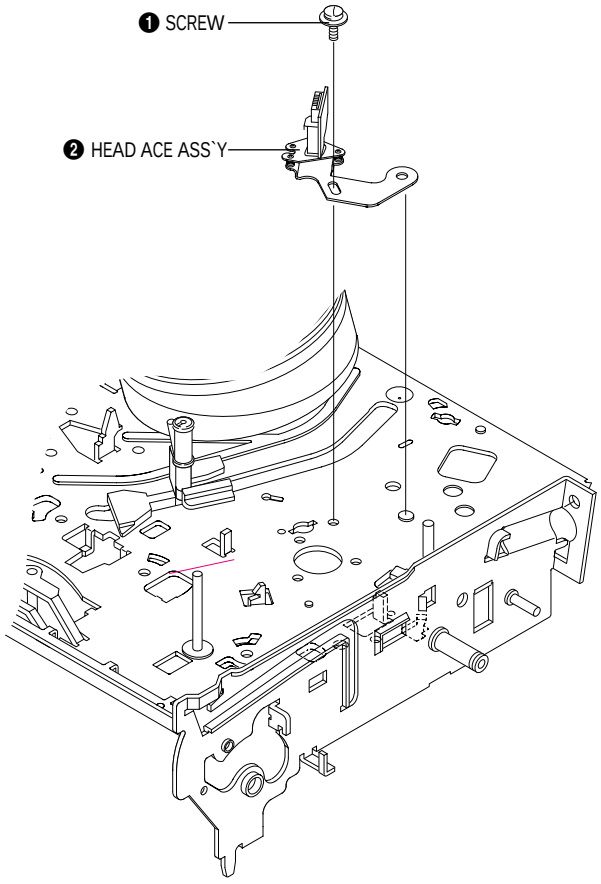


Fig. 1-27 ACE Head Removal

1-2-22 Slider S, T Ass'y Removal

1) Move the Slider S, T Ass'y ❶, ❷ to slot, and then lift it to remove. (Refer to arrow)

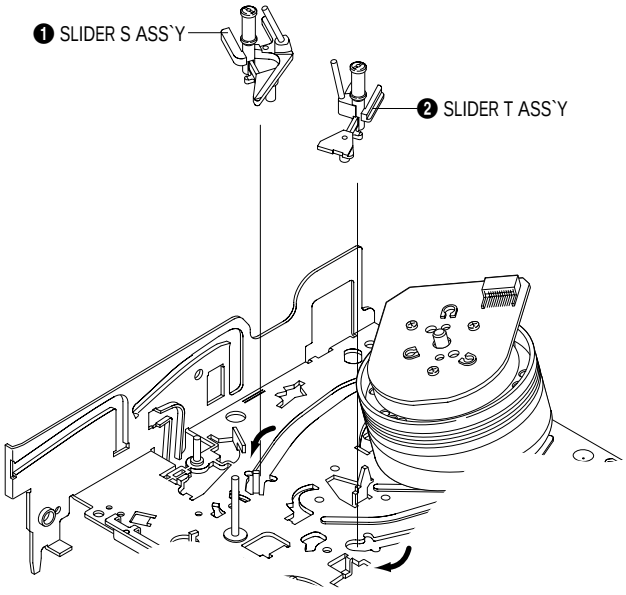


Fig. 1-28 Slider S, T Ass'y Removal

1-2-23 Plate Ground Deck, Cylinder Ass'y Removal

1) Remove the 3 Screws ❶.
2) Lift the Plate Ground Deck ❷.
3) Lift the Cylinder Ass'y ❸.

Assembly :
1) Match the 3 holes in the bottom of Cylinder ass'y ❸ to the 3 holes of Main Base as attending not to drop or knock the Cylinder ass'y ❸.
2) Tighten the 1 Screw ❶.
3) Match the Plate Ground Deck ❷ to the Hole of Base Main.
4) Tighten the other 2 Screws ❶.

Note :
1) Take care not to touch the Cylinder Ass'y ❸ and the tape guide post at reinstalling.
2) When reinstalling, Don't push down too much on Screw Driver.

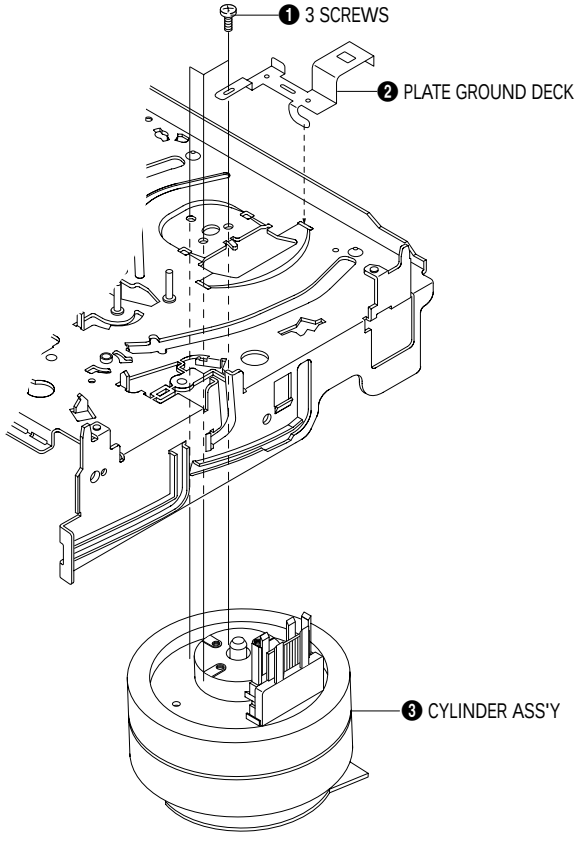


Fig. 1-29 Plate Ground Deck, Cylinder Ass'y Removal

1-2-24 Belt Pulley Removal

1) Remove the Belt Pulley ❶.

Note : Take extreme care not to get grease on Belt Pulley ❶ at assembling or reassembling.

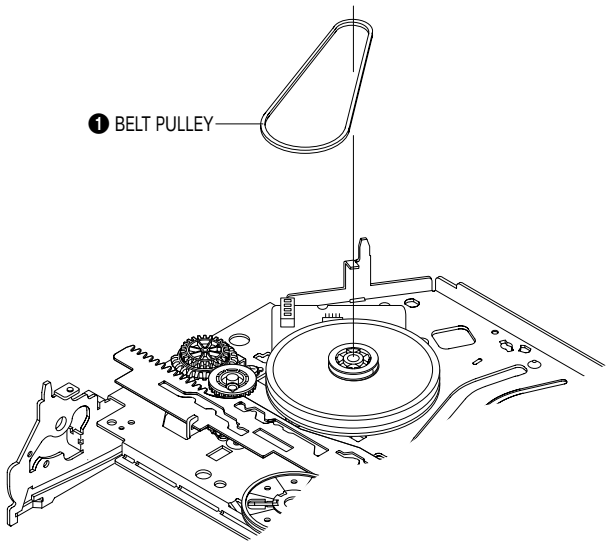


Fig. 1-30 Belt Pulley Removal

1-2-25 Level Head Cleaner Ass'y Removal

1) Release the Hook ❶.
2) Lift the Lever Head Cleaner Ass'y ❷.

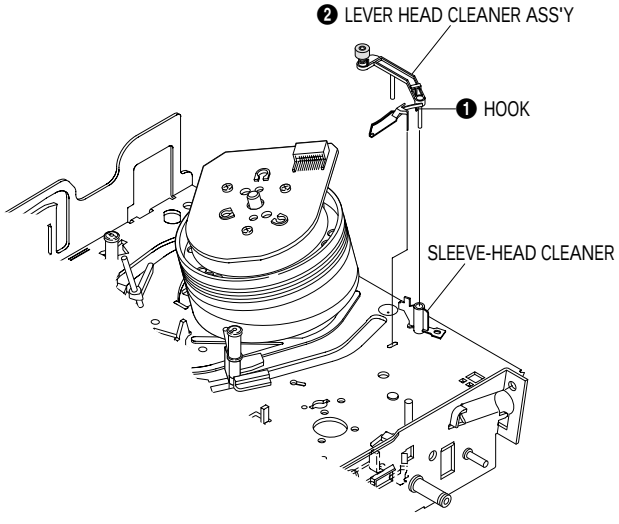


Fig. 1-31 Level Head Cleaner Ass'y Removal

1-2-26 Damper Capstan, Motor Capstan Ass'y Removal

1) Remove the Damper Capstan ❶ in the direction of arrow.
2) Remove the 3 Screws ❷.
3) Remove the Motor Capstan Ass'y ❸.

Assembly :

1) Match the 3 holes of Motor Capstan Ass'y ❸ to the 3 holes of Main Base. Be careful not to drop or knock the Motor Capstan Ass'y ❸.
2) Tighten the 3 Screws ❷ in the direction of arrow as shown detail drawing.
3) Assemble the Damper Capstan ❶.

Note : After tightening screws, check if there is gap between the head of screws and the top side of Main Base. There should have no gap between the head of screws and the top side of Main Base.
After reinstalling, adjusting the tape transport system again.

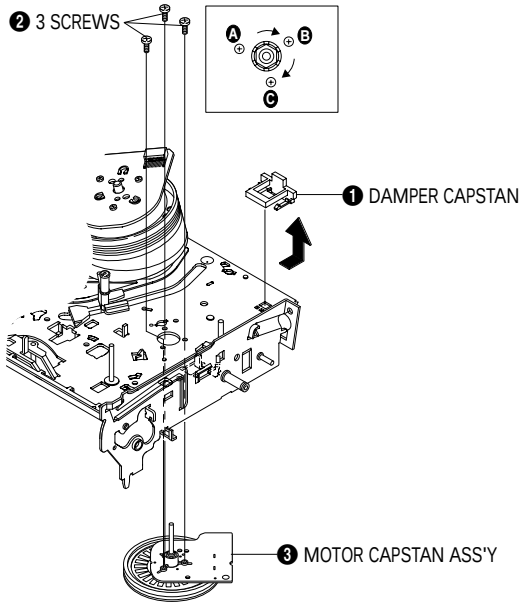


Fig. 1-32 Damper Capstan,Motor Capstan Ass'y Removal

1-2-27 How to Eject the Cassette Tape (If the unit does not operate on condition that is inserted into housing ass'y)

1) Turn the Gear worm ❶ clockwise with screw driver. (Refer to arrow)
(Other method : Remove the Screw of Motor Load Ass'y, Separate the Motor Load Ass'y)

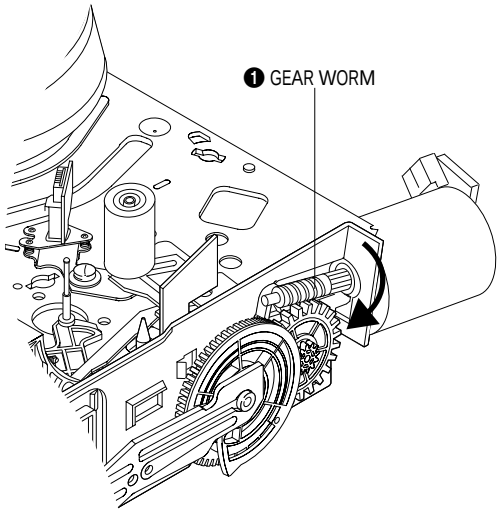


Fig. 1-33

2) When Slider S,T are approched in the position of unloading, rotate holder Clutch counterclockwise after inserting screw driver in the hole of frame's bottom in order to wind the unwinded tape. (Refer to Fig.1-34)
(If you rotate Gear Worm ❶ continuously when tape is in state of unwinding, you may cause a tape contamination by grease and tape damage. Be sure to wind the unwinded tape in the state of set horizontly.)
3) Rotate Gear Worm ❶ clockwise using screw driver again up to the state of eject mode and then pick out the tape.(Refer to Fig.1-33)

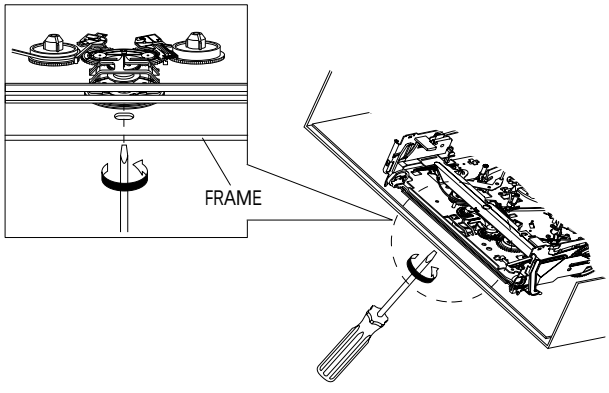


Fig. 1-34

1-3 The table of clearing, Lubrication and replacement time about principal parts

1) The replacement time of parts is not life of parts.
2) The table 1-1 is that the VCR Set is in normal condition (normal temperature, normal humidity).
   The checking period may be changed owing to the condition of use, runtime and environmental conditions.
3) Life of the Cylinder Ass'y is depend on the condition of use.
4) See exploded view for location of each parts.

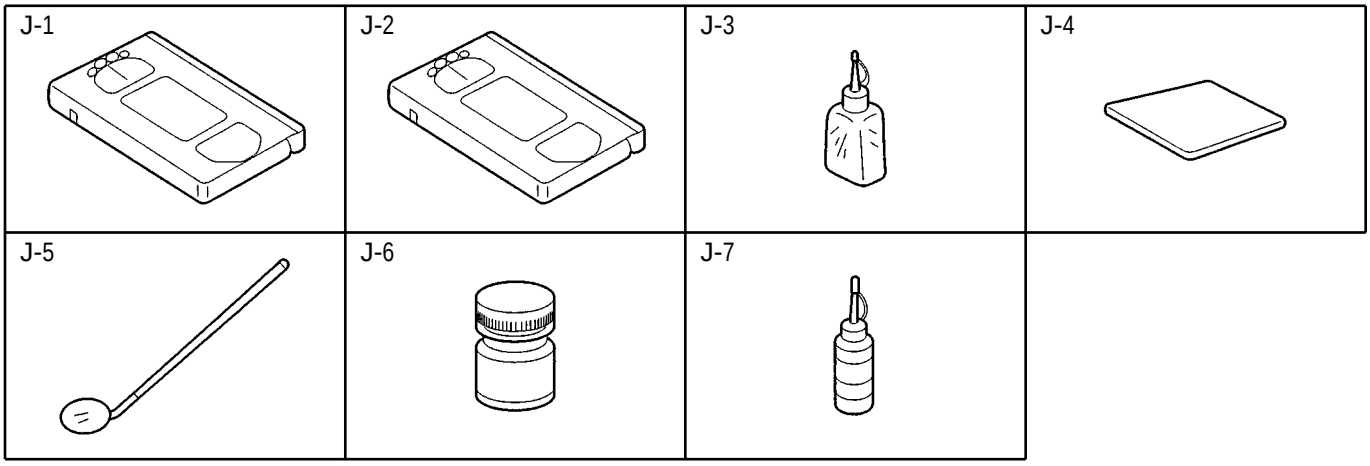
<Table 1-1>

*	Parts Name	Checking Period										Remark
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
TAPE PATH SYSTEM	POST TENSION	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	- To clean the parts, use patch and alcohol (solvent). - After cleaning, use the video tape after alcohol is gone away completely. - We recommend to use oil [NT-68] or solvent. - One or two drops of oil should be applied after cleaning with alcohol.
	SLANT POST S, T	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#8 GUIDE SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	CAPSTAN SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#9 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#3 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	GUIDE ROLLER S, T	Δ	Δ	Δ	O	O	O	O	O	O	O	
	CYLINDER ASS'Y	Δ	O	O	O	O	O	O	O	O	O	
	FE HEAD	Δ	Δ	Δ	O	O	O	O	O	O	O	
	ACE HEAD	Δ	O	O	O	O	O	O	O	O	O	
	PINCH ROLLER	Δ	O	O	O	O	O	O	O	O	O	
	POST REEL S, T		◆		◆		◆		◆		◆	- Periodic time of applying oil (Apply oil after cleaning) - The excessive applying oil may be the cause of malfunction.
	SLEEVE TENSION		◆		◆		◆		◆		◆	
	POST CENTER		◆		◆		◆		◆		◆	
	LEVER IDLE BOSS (2Point)		◆		◆		◆		◆		◆	
DRIVING SYSTEM	CAPSTAN MOTOR PULLEY	Δ	Δ	Δ	Δ	Δ	O	O	O	O	O	
	BELT PULLEY				O	O	O	O	O	O	O	
	HOLDER CLUTCH ASS'Y	Δ	O	O	O	O	O	O	O	O	O	
	GEAR CENTER ASS'Y		O	O	O	O	O	O	O	O	O	
	GEAR IDLE (2Point)		O	O	O	O	O	O	O	O	O	
	LOADING MOTOR		O	O	O	O	O	O	O	O	O	
BRAKE SYSTEM	BAND BRAKE ASS'Y		O	O	O	O	O	O	O	O	O	
	BRAKE T ASS'Y		O	O	O	O	O	O	O	O	O	

Δ : Cleaning O : Check and replacement in necessary ◆ : Add Oil

1-4 Tools and fixtures reguired for service

Ref. No.	Name		Part No.	Caved Jig No.	Remarks
J-1	Torque Measurement Cassette VHT-103S		J-6090-072-A		For FWD & back tension torque measurement
	Torque Measurement Cassette VHT-404S		J-6082-012-A		For CUE and REVIEW torque measurement
J-2	Alignment Tape	KRV-52NE (NTSC)	8-192-605-41		Tape path, Audio azimuth, X-value adjustments
		KRV-51N2 (NTSC)	8-192-605-32		Electrical adjustments, Operation check
		KRV-52PL (PAL)	8-192-605-46		Tape path, Audio azimuth, X-value adjustments
		KRV-51P (PAL)	8-192-605-36		Electrical adjustments, Operation check
J-3	Cleaning Fluid		Y-2031-001-0	—	
J-4	Chamois Leather		2-034-697-00	—	
J-5	Dental Mirror (with Handle)		J-6080-029-A	SL-5052	Tape path and tape traveling adjustments or checks
	Dental Mirror (Mirror)		J-6080-030-1		
J-6	Grease Molykote EM 30LG		J-6090-014-A		Net. 20 g
J-6	Diamond Oil NT-68		7-661-018-18		



<Fig 1-35>

2. Alignment and Adjustment

2-1 Tape Transport System and Adjustment Locations

The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the following :
1) Noise observed on the screen.
2) Tape damage.
3) Parts replacement in the tape transport system.

Lower flange height of tape guide is used as the reference for the transport adjustment.
To maintain the height of the tape guide and prevent damage, do not apply excessive force onto the main base.

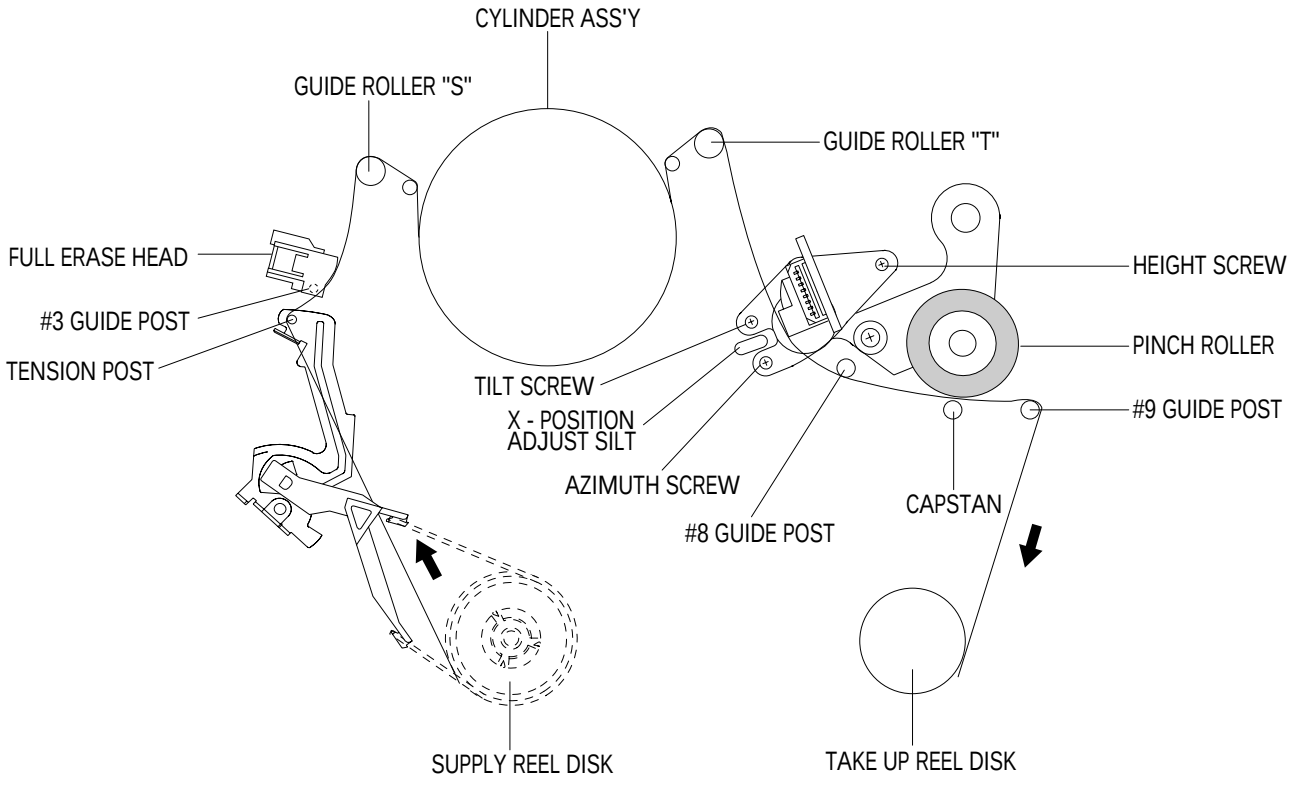


Fig. 2-1 Location of Tape Transport Adjustment

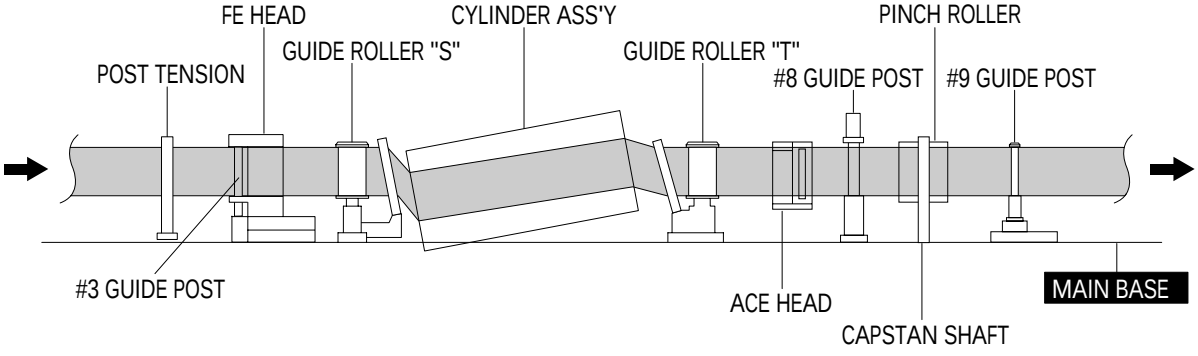


Fig. 2-2 Tape Travel Diagram

2-2 Tape Transport System Adjustment

When parts are replaced, perform the required adjustments by referring to procedures for the tape transport system. If there are any changes to the tape path, first run a T-120 tape and make sure excessive tape wrinkle does not occur at the tape guides.

1) If tape wrinkle is observed at the guide roller S, T, turn the guide roller S, T until wrinkle disappears.
2) If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the ACE head. (See page 5-3 of the Service Manual for Test Point Locations.)

2-2-1 ACE Head Assembly Adjustment

2-2-1(a) ACE HEAD HEIGHT ADJUSTMENT

1) Run the alignment tape (KRV-52NE (NTSC) / 52PL (PAL)) in the playback mode.
2) Observe surface of the audio head using a dental mirror.
3) Turn screw (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25mm. (Refer to Fig. 2-3 and 2-4)

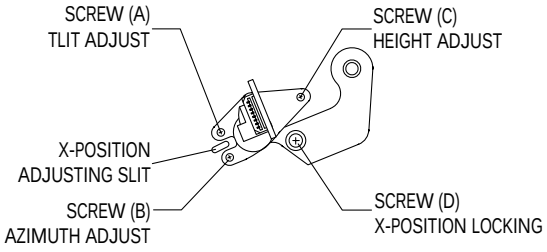


Fig. 2-3 Location of ACE Head Adjustment Screw

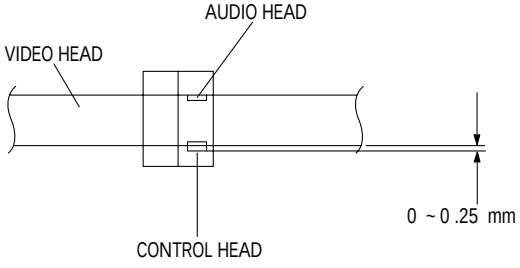


Fig. 2-4 ACE Head Height Adjustment

2-2-1(b) ACE HEAD TILT ADJUSTMENT

1) Playback a blank tape and observe the position of the tape at the lower flange of tape guide.
2) Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig. 2-5 (B).
3) If a curl or wrinkle of the tape occurs, slightly turn the screw (A) tilt adjust on the ACE head ass'y.
4) Reconfirm the ACE head height.

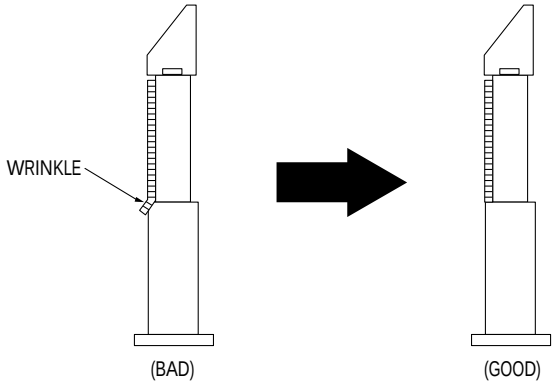


Fig. 2-5 Tape Guide Check

2-2-1(c) AUDIO AZIMUTH ADJUSTMENT

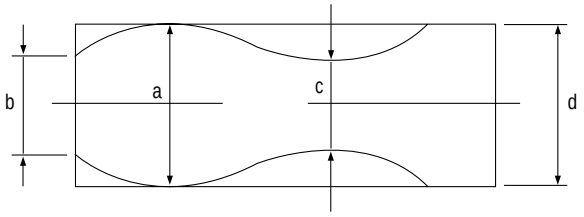
1) Load alignment tape (KRV-52NE (NTSC) / 52PL (PAL)) and playback the NTSC : 5KHz (PAL : 4KHz) signal.
2) Connect channel-1 scope probe to audio output test point.
3) Adjust screw (B) to achieve maximum audio level. (See Fig. 2-3)

2-2-1(d) ACE HEAD POSITION (X-POINT) ADJUSTMENT

1) See "2. Alignment and Adjustment" for ACE Head position (X-Point) adjustment.

2-2-2 Linearity Adjustment (Guide roller S, T adjustment)

1) Playback the alignment tape (KRV-51N2 (NTSC)/51P (PAL)) (SP mode, Mono Scope).
2) Observe the video envelope signal on an oscilloscope (triggered by the video switching pulse).
3) Make sure the video envelope waveform (at its minimum) meets the specification shown in Fig. 2-6.
   If it does not, adjust as follows :



a b c d
c,b,d/a ≧63%

Fig. 2-6 Envelope Waveform Adjustment

Note :
a=Maximum output of the video RF envelope.
b=Minimum output of the video RF envelope at the entrance side.
c=Minimum output of the video RF envelope at the center point.
d=Maximum output of the video RF envelope at the exit side.

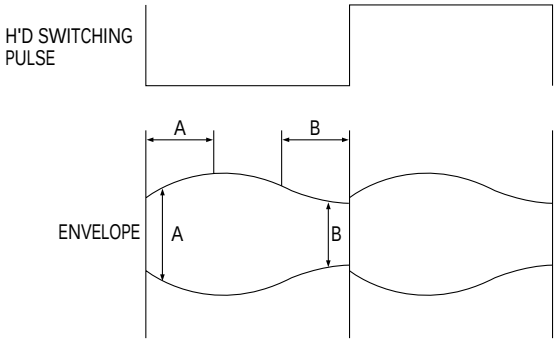


Fig. 2-7 Adjustment Points

4) If the section A in Fig. 2-7 does not meet the specification, adjust the guide roller S up or down.
5) If the section B in Fig. 2-7 does not meet the specification, adjust the guide roller T up or down.
6) Play back the alignment tape (SP mode, Mono Scope).
7) Connect an oscilloscope CH-1 to the Envelope and CH-2 to the H'D SW Pulse for triggering.
8) Turn the guide roller heads with a flat head ( ) driver to obtain a flat video RF envelope as shown in Fig. 2-8.

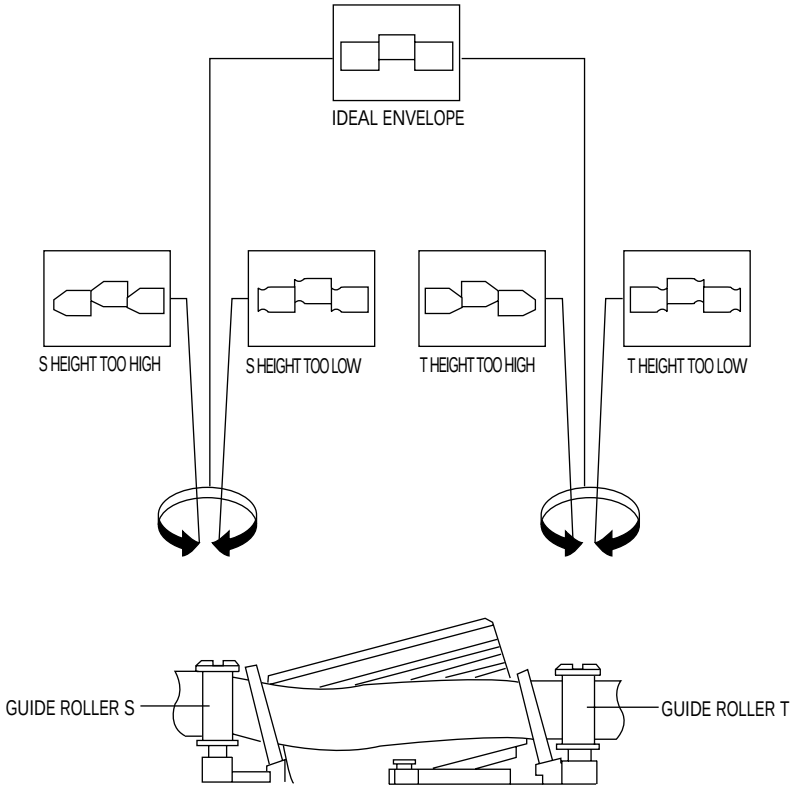


Fig. 2-8 Guide Roller S, T Height Adjustment

2-2-3 Check Transitional Operation from RPS to Play

Check transition from RPS mode to play mode :
Using a pre-recorded SP tape, make sure the entry side of envelope comes to an appropriate steady state within 3 seconds (as shown in Fig. 2-9).
If the envelope waveform does not reach specified peak-to peak amplitude within 3 seconds, adjust as follows :

1) Make sure there is no gap between the supply roller lower flange and the tape.
   If there is a gap, adjust the supply guide roller again.
2) Change operation mode from the RPS to the play mode (again) and make sure the entry side of envelope rises within 3 second.

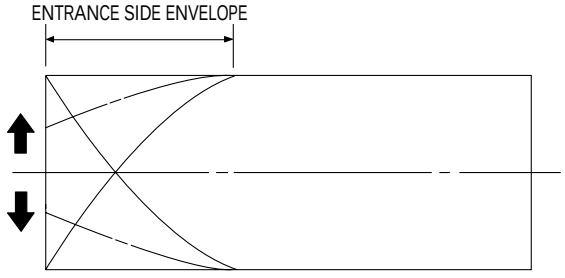


Fig. 2-9 Video Envelope Rising when Operation mode Changes from RPS to Play Mode

2-2-4 Envelope Check

1) Make recordings on T-120 (E-120) and T-160 (E-180) tape.
   Make sure the playback output envelope meets the specification as shown in Fig. 2-10.
2) Play back a self recorded tape (recording made on the unit using with T-120 (E-120).
   The video envelope should meet the specification as shown in Fig. 2-10.
   In SP mode, (A) should equal (B).
   If the head gap is wide, upper cylinder should be checked.

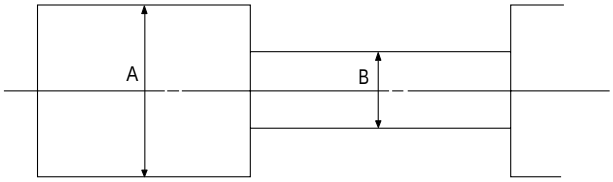


Fig. 2-10 Envelope Output and Output Level

2-2-5 Tape Wrinkle Check

1) Run the T-160 (E-180) tape in the playback, FPS, RPS and Pause modes and observe tape wrinkle at each guide.
2) If excessive tape wrinkle is observed, perform the following adjustments in Playback mode :

◆ Tape wrinkle at the guide roller S, T section :
Linearity adjustment.
◆ Tape wrinkle at tape guide flange :
ACE head assembly coarse adjustment.

2-3 Reel Torque

1) The rotation of the capstan motor causes the Holder Clutch Ass'y to rotate through the Belt Pulley.
2) The spring wrap PLAY/REV of holder clutch ass'y drives the disk reel S, T through gear idle by rotation of gear center ass'y.
3) Brake is operated by slider cam at FF/REW mode.
4) Transportation of accurate driving force is done by gears. (Gear Center Ass'y)

Note : If the spec. does not meet the followings specifications, replace the holder clutch ass'y and then recheck.

<Table 2-1>

MODE	TORQUE g/cm	GAUGE
PB	42 ± 11	Cassette Torquemeter
RPS	145 ± 30	Cassette Torquemeter

9-921-790-11

Sony Corporation
Network Entertainment Group

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